

# Syllabi and Scheme of Examination

for

# M.A. Economics (Two-Year PG Degree Programme) (With effect from August, 2015)



University School of Humanities and Social Sciences Guru Gobind Singh Indraprastha University Dwarka, New Delhi - 110078

### **MA Economics**

(Semester Wise Course Contents)

## SEMESTER - I

Sl. No.	Course Code	Course ID	Title of the Course	Total Credits	Pedagogy
The	ory			L + T*	
1	HSECO-601	307601	Microeconomics	4+1=5	Lectures/ Assignments
2	HSECO-603	307603	Macroeconomics	4+1=5	Lectures/ Assignments
3	HSECO-605	307605	Statistical Methods	4+1=5	Lectures/ Assignments
4	HSECO-607	307607	Mathematical Methods	4+1=5	Lectures/ Assignments

Note: (1). L= Lecture, T = Tutorial; (2). In case of Practicals/Tutorials/Seminars, one credit would be equivalent to two hours of teaching.

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Approved by the Board of Studies in its 1<sup>st</sup> meeting held on 16<sup>th</sup> June, 2016 and in AC Sub Committee held on 18<sup>th</sup> June, 2015.

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# **MA Economics**

(Semester Wise Course Contents)

# SEMESTER - II

SI. No	Course Code	Course ID	Title of the Course	Total Credits	Pedagogy
The	ory ·			L + T	
1	HSECO-602	307602	Econometrics-I	4+1=5	Lectures/ Assignments
2	HSECO-604	307604	Economics of Money, Banking and Finance	4+1=5	Lectures/ Assignments
3	HSECO-606	307606	Development Economics	4+1=5	Lectures/ Assignments
Elec	tive -I (Any o	ne from the	following)		
4	HSECO-608	307608	Industrial Economics	4+1=5	Lectures/ Assignments
	HSECO-610	307610	Financial Economics	4+1=5	Lectures/ Assignments
	HSECO-612	307612	Environmental Economics	4+1=5	Lectures/ Assignments
	HSECO-614	307614	Economics of Business Cycles and Crisis	4+1=5	Lectures/ Assignments

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# **MA Economics**

(Semester Wise Course Contents)

# SEMESTER - III

Sl. No	Course Code	Course ID	Title of the Course	Total Credits	Pedagogy
The	ory			L + T	
1	HSECO-701	307701	Econometrics-II	4+1=5	Lectures/ Assignments
2	HSECO-703	307703	Public Economics	4+1=5	Lectures/ Assignments
3	HSECO-705	307705	International Economics	4+1=5	Lectures/ Assignments
$\mathbf{E}$	lective - II (A	ny one fro	om the following):		
4	HSECO-707	307707	Behavioural Economics	4+1=5	Lectures/ Assignments
	HSECO-709	307709	Corporate Finance	4+1=5	Lectures/ Assignments
	HSECO-711	307711	Health Economics	4+1=5	Lectures/ Assignments
	HSECO-713	307713	Advanced Macroeconomics	4+1=5	Lectures/ Assignments

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## **MA Economics**

(Semester Wise Course Contents)

# SEMESTER - IV

Sl. No.	Course Code	Course ID	Title of the Course	Total Credits	Pedagogy
Theory				L + T	
1	HSECO-702	307702	Issues in Indian Economics	4+1=5	Lectures/ Assignments
Ele	ective - III (Ar	y one fron	the following):		
2	HSECO-704	307704	Game Theory	4+1=5	Lectures/ Assignments
	HSECO-706	307706	Financial Econometrics	4+1=5	Lectures/ Assignments
	HSECO-708	307708	Natural Resource Economics	4+1=5	Lectures/ Assignments
	HSECO-710	307710	Law and Economics	4+1=5	Lectures/ Assignments
3	HSECO-752	307752	Dissertation and Viva	10	NUES/Mentor- Students Deliberations

# DISTRIBUTION OF CREDITS

Semester - I	Semester - II	Semester - III	Semester - IV	Total Credits
20	20	20	20	80

Note: For the award of PG degree in MA Economics the student shall have to earn 80 credits.

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# University School of Humanities & Social Sciences Guru Gobind Singh Indraprastha University, Dwarka, Delhi -110 078

## THE EXAMINATION SCHEME FOR MA ECONOMICS PROGRAMME (TWO YEARS)

### A. EXAMINATION SCHEME

- 1. The student shall be evaluated for each paper on continuous basis through internal and external evaluations respectively.
- 2. The internal evaluation for each paper shall be for 40 marks as detailed below:

Minor - I (Theory Test)

= 15 marks

(After six weeks of teaching)

Minor-II (Theory Test)

= 15 marks

(After 12 weeks of teaching)

Internal Assessment

= 10 marks

Through Classroom Performance & Assignments in each Theory paper

TOTAL = 40 marks

- 3. The external evaluation for each paper shall be based on end-term theory and seminar/project examinations (as outlined in the detailed course scheme) carrying 60 marks.
- 4. Evaluation for NUES paper (HSECO-752, i.e., Dissertation) shall be based on periodic seminar performance out of 100 marks. The evaluation shall be done by a panel of internal faculty members or a panel of internal (40 marks) and external (60 marks) members constituted by the Dean. It would be an NUES paper.
- 5. Minimum credits required for the award of degree shall be 80.

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## B. INSTRUCTIONS FOR PAPER SETTING (END SEMESTER EXAMINATION)

- 1. End Semester Theory papers shall be set from **all four units** (i.e., UNIT I, II, III and IV) of the respective course content.
- 2. Five questions in all, with internal choice, will be set in each paper. The student shall be required to attempt all the five questions.
- 3. Each question shall be of 12 marks.
- 4. Question no. I shall be of short answer type questions and would cover all four units of the course content in each paper. It shall have eight subparts, two from each unit, out of which the students would be required to attempt any four parts choosing at least one question from each unit.
- 5. Questions Nos 2 to 5 shall be long answer type questions covering all the four units of the course content.
- 6. Each long answer type question, based on each unit shall be set so as to give internal choice to the students.
- 7. The Question Papers must be set so as to achieve the objectives laid down for the course.
- 8. Guidelines for setting papers would be sent to the External Examiners/Paper Setters.

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### **MA Economics**

### Semester - I

Paper Code: HSECO-601

Nomenclature of the Paper: Microeconomics

Internal Marks: 40

Lectures - 4, Tutorial - 1 Total Credit - 5

External Marks: 60

**Objective:** To enable the students to familiarize themselves with fundamental concepts, theories, and models of microeconomics and to enhance their understanding of application of microeconomic concepts in welfare economics.

## Unit - I Consumer Behaviour and Theory of Production

Consumer Preferences, Budget Constraints, Consumer Choice – Revealed Preference – Theory of Demand – Consumer Surplus – Consumer Behaviour and Uncertainty – Theory of Production: Production Function, Laws of Productions – Cost of Production: Measuring Cost, Short- and Long-Run Costs – Cost Minimizing Input Choice – Equilibrium of Firm and Expansion Path – Economies and Diseconomies of Scale and Scope – Dynamic Changes in Cost – Estimation of Demand, Production and Cost Functions.

## Unit - II Markets, Competitions and Game Theory

Theory of Firm – Perfect competition: Profit Maximization and Competitive Supply – Price and Output Decision in Monopoly and Monopolistic Competition – Pricing with Market Power: Consumer Surplus and Price Discrimination, Intertemporal Price Discrimination – Price and Output Decision in Oligopoly – Game Theory and Market Strategy – Recent Developments in Market Competition Theories.

### Unit - III Factor Market

Competitive Factor Markets – Demand and Supply of Factor Inputs – Equilibrium in Factor Market – Factor Market with Monopsony and Monopoly Power – Factor Substitution – Technological Progress – Income Distribution – Adding-up Problem – Product Exhaustion Theorems.

## Unit - IV Limits of Market and Welfare Economics

General Equilibrium and Efficiency – Equity and Efficiency – Market Failure – Externalities and Public Goods: Concept and Correction of Market Failure, Role of Government – Welfare Economics – Criteria of Social Welfare: Bentham, Cardinalist, Pareto-Optimality, Kaldor-Hicks-Samuelson Compensation, Bergson's Criterion, Arrow's Impossibility Theorem, Rawl's Theory of Social Justice – Maximization of Social Welfare.

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## Suggested Readings:

- 1. Pindyck, R.S. and D.L. Rubinfeld, Microeconomics, 6th Edition, Prentice Hall, 2008.
- 2. Varian, H. R., Microeconomic Analysis, 3<sup>rd</sup> Edition, W.W. Norton and Co., 1992.
- 3. Henderson, M. and R.E. Quandt, *Microeconomic Theory: Mathematical Approach*, McGraw Hill, 1980.
- 4. Nicholson, W. and Christopher M. Snyder., *Microeconomic Theory: Basic Principles and Extensions*, 11<sup>th</sup> Edition, South-Western College Publication, 2011.
- 5. Mas-Colell, A., M.D. Whinston, and J. Green, *Microeconomic Theory*, Oxford University Press, 1995.

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# University School of Humanities and Social Sciences MA Economics

#### Semester - I

Paper Code: HSECO-603

Nomenclature of the Paper: Macroeconomics

Internal Marks: 40

Lectures - 4, Tutorial - 1 Total Credit - 5 External Marks: 60

**Objectives:** To help students critically engage themselves with various macroeconomic theories, models and policy debates and hone up their understanding of the existing literature and contemporary macroeconomic events in the domestic and world economy.

## Unit - I Classical and Keynesian, Monetarist Counterrevolution

Origin – Macroeconomic Basics – Saving and Investment in Closed and Open Systems – Money, Prices and Interest in Classical and Keynesian Systems – Aggregate Demand –Demand for Money – IS-LM Model – Aggregate Demand and Supply – Monetarist Propositions – Quantity theory – Alternative Views: Output, Inflation and Unemployment – Natural Rate and Phillips Curve – Rational Expectation – Business Cycle Model.

## Unit - II Consumption and Investment Behaviour

Consumption and Economic Stability – Forward Looking Behaviour: Permanent Income and Life-cycle Hypothesis – Rational Expectation and Other Amendments – Bequests and Uncertainty – Investment and Economic Stability – Accelerator Hypothesis – Flexible Accelerator – Neoclassical Theory – Role of Monetary and Fiscal Policy.

#### Unit - III Economic Growth Models

Importance and Facts of Economic Growth – Sources of Growth: Growth Accounting – Saving, Capital Accumulation and Output – Growth Theory: Exogenous Growth Theory – Solow-Swan Model – Solow's Residual – Puzzles – Convergence: Types and Failure of Convergence – Welfare and the Golden Rule – Exogenous Factors in Growth – Endogenous Growth Theory: Romer's Model – Schumpeterian Growth Model – Appropriate Institutions and Economic Growth.

### Unit - IV Macroeconomic Adjustments and Open Economy

Monetary Policy: Objectives, Policy Curve, Rules and Transmission Mechanism – Inflation, Deflation Gap, Depression and Slumps – Fiscal Policy: Issues in Fiscal Policy, Monetizing the Debt, Fiscal Policy Rules – Policies for Growth – Exchange Rate: Market, Regimes, Theories and Determination – Mundell-Fleming Model – Recent Developments in Macroeconomic Policies.

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### Suggested Readings:

- 1. Richard T. Froyen. Macroeconomics: Theories and Policies, 10th Edition, Pearson, 2012.
- 2. Wendy Carlin & David Soskice., Macroeconomics: Imperfections, Institutions & Policies, Oxford University Press.
- 3. Frederic S. Mishkin., Macroeconomics: Policy and Practice, Addison-Wesley, 2012.
- 4. Scarth, W., Macroeconomics: An Introduction to Advanced Methods, McMaster Innovation Press, 2009.
- 5. Robert J. Gordon., Macroeconomics, PHI Learning Private Ltd. New Delhi, 2012.
- 1. David Romer., Advanced Macroeconomics, McGraw-Hill Company, 2004.

## Further Readings: (General: 1-4; Unit-I: 5-8; Unit-III: 9-12; Unit-IV: 13-18)

- 1. Joan Robinson, (1972), *The Second Crisis of Economic Theory*, The American Economic Review, Vol. 62, No. 1/2, pp. 1-10.
- 2. Gergory Mankiw, (1990), A Quick Refresher Course in Macroeconomics, Journal of Economic Literature Vol. XXVIII, pp. 1645-1 660.
- 3. Woodford, M. (1999), Revolution and Evolution in Twentieth-Century Macroeconomics, In P. Gifford (ed.) Frontiers of the Mind in the Twenty: First Century (Harvard University Press).
- 4. Blanchard, O. (2000), What Do We Know About Macroeconomics that Fisher and Wicksell Did Not? Quarterly Journal of Economics, Vol. 115, no. 4, pp. 1375-1410.
- 5. J. R. Hicks, (1937), Mr. Keynes and the Classics; A Suggested Interpretation, Econometrica, Vol. 5, No. 2, pp. 147-159.
- 6. David Romer, (2000), *Keynesian Macroeconomics without the LM Curve*, Journal of Economic Perspectives—Vol. 14, No. 2, pp. 149–169.
- 7. Milton Friedman, (1968), *The Role of Monetary Policy*, The American Economic Review, Vol. LVIII, No.1, PP. 1-17.
- 8. Kaldor, N. (1970), The New Monetarism, Llyod's Bank Review.
- 9. Solow, R. (1956), A Contribution to the Theory of Economic Growth, Quarterly Journal of Economics 70:65-94.
- 10. Lucas, R. (1990), Why doesn't Capital Flow from Rich to Poor Countries, American Economic Review, Vol. 80, No. 2.
- 11. Mankiw, G., D. Romer and D. Weil. (1992), A Contribution to the Empirics of Economic Growth, The Quarterly Journal of Economics, Vol. 107, No 2.
- 12. Paul M. Romer, (1994), *The Origins of Endogenous Growth*, Journal of Economic Perspectives, Vol. 8, No. 1, pp. 3-22.
- 13. Carmen M. Reinhart and Kenneth S. Rogoff, (2004), *The Modern History of Exchange Rate Arrangements: A Reinterpretation*, Quarterly Journal of Economics, Vol. CXIX, No. 1.
- 14. Mark P. Taylor, (1995), *The Economics of Exchange Rates*, Journal of Economic Literature, Vol. XXXIII, pp. 13-47.
- 15. Alesina, A. and R. Perotti, (1994), *The Political Economy of Budget Deficits*, IMF Staff Papers, Vol. 42.
- 16. Mishkin, Frederic S. (1995), Symposium on the Monetary Transmission Mechanism, Journal of Economic Perspectives, 9(4): 3-10.
- 17. Taylor, John B. (1995), The Monetary Transmission Mechanism: An Empirical Framework, Journal of Economic Perspectives, 9(4): 11-26.
- 18. Rakesh Mohan, (2007), Monetary Policy Transmission in India, RBI Monthly Bulletin, April.

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### MA Economics

Semester-I

Paper Code: HSECO-605

Nomenclature of the Paper: Statistical Methods

Internal Marks: 40

Lectures - 4, Tutorial - 1

Total Credit - 5 External Marks: 60

Objectives: To enable the students to familiarize themselves with the essential statistical concepts and techniques required for studying and understanding economics and to demonstrate that how statistical concepts are applied in economic theory and practice.

## Unit - 1 Probability: Theory and Distribution

Concept of probability - Types of probability: Classical, Relative Frequency and Subjective approach - Conditional probability and Bayes' theorem, random variables - discrete and continuous - Density and distribution functions - Law of large numbers and Central Limit theorem - Probability Distribution: Types of theoretical distribution - Discrete theoretical distribution – Binomial and Poisson distribution – Continuous theoretical distribution – Normal distribution, Z-distribution – Other theoretical distribution – Students-t distribution – Chi-Square and F-Distribution.

## Unit - II Sampling Theory

Population and sample – Parameter and statistic – Data collection methods – Objects of sampling - Methods of sampling - Random and Non-Random - Sampling error and Non-Sampling error-Sampling distribution of a Statistic – Law of Statistical Regularity – Law of Inertia of Large Numbers - Central limit theorem.

### Unit - III Theory of Estimation

Meaning and concept Estimation and Estimator - Types of Estimation: Point and Interval Estimation, Properties of an Estimator - Different methods of estimation: Maximum Likelihood Estimation, Properties of Maximum Likelihood Estimates, Uniformly Minimum Variance Unbiased Estimates, Decision-Theoretic Approach to Estimation, Other Methods of Estimation – Standard error of Estimator – Confidence limits – confidence interval for unknown parameters.

### Unit - IV Statistical Inference

Hypothesis: Formulation of Statistical Hypothesis, Testing of Null and Alternative Hypothesis – Stages in Hypothesis testing – Types of Error - Level of significance and confidence coefficient -Critical region – One and Two tailed test – Computation of Test statistic and significance Test – Small sample and Large sample test – Power of a Test – Neyman-Pearson lemma – Trinity of classical tests: Wald test, Lagrange multiplier, likelihood ratio – Application of hypothesis testing with known and unknown variances - Analysis of Variance - Basics of data analysis using Eviews and RATS.

Approved by the Board of Studies in its 1st meeting held on 16th June, 2016 and in AC Sub Committee held on 18th June, 2015.

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### Suggested Readings:

- 1. Speigal. M. R. (1992), Theory and problems of Statistics, McGraw Hill, London.
- 2. Hogg, R.V; A. Craig & J. W. McKean. (2012), *Introduction to Mathematical Statistics*, Pearson Education Limited, UK.
- 3. Monga, G.S. (1972), Mathematics and Statistics for Economists, Vikas Publications, New Delhi.
- 4. Gupta.S.C. (1993), Fundamentals of Applied Statistics, S. Chand, New Delhi.
- 5. F.M. Dekking; C. Kraaikamp, H.P Lopuhaa & L.E Meester, (2005). A Modern Introduction to Probability and Statistics, Springer-Verlag London Limited.
- 6. Mood, A. M., R. A. Graybill and R.C. Boes. (1974), *Introduction to the Theory of Statistics*, McGraw-Hill, USA.
- 7. Miller, I. & M. Miller. (2012), John E. Freund's Mathematical Statistics with Applications, Pearson.
- 8. Dennis, W; W. Mendenhall & R. L. Scheaffer. (2008), *Mathematical Statistics with Applications*, Thomson Brooks/Cole.

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### MA Economics

### Semester - I

Paper Code: HSECO-607

Nomenclature of the Paper: Mathematical Economics

Internal Marks: 40

Lectures - 4, Tutorial - 1

Total Credit - 5

External Marks: 60

Objectives: To enable the students to familiarize themselves with the essential mathematical concepts required for studying and understanding core economics papers and to demonstrate how mathematical concepts are used in economics theory and practice.

### Unit – I Review of Basic Concepts and Linear Algebra

Mathematics in Economics Theory - Set Theory: Operations, Laws of Set Operations - Venn Diagrams – Relations and Functions – Graphs: Coordinate systems – Linear Functions, Linear Inequalities – Summation Notation – Systems of Linear Equations, Vectors and Operations on Vectors – The Algebra of Vectors – Matrix Operations: Matrix Algebra, Laws of Matrix Algebra - The Transpose - Determinants and Matrix Inversion - Expansion of Cofactors - Application: Cramer's Rule, Input-output Model - Hawkin-Simon Condition - Linear Independence, Rank of Matrix, Eignvalues.

## Unit - II Single-Variable Calculus: Foundations

Slopes of Curves and Tangent - Limit, Continuity and Differentiability of a function -Differentiation: Rules, Implicit function theorem, Second- and Higher- Order Derivatives and Youngs's Theorem - Partial and Total Differentiation: Techniques and Application - Total Differentials: Rules and Economic Applications.

### Unit - III Optimization: Unconstrained and Constrained

Unconstrained Optimization: definition, First and Second order condition, Global Maxima and Minima, Extreme-Value theorem, Concave and Convex Functions - Application: Profit-Maximizing Firm - Constrained Optimization: Equality, Inequality, Mixed Constraints -Minimization Problem - Lagrange Multiplier Method, Sufficient Condition, Economic Interpretations, Envelope Theorem.

## Unit - IV Dynamic Analysis: Integration, Difference and Differential Equations

Dynamics and Integration – Indefinite Integrals: Rules of Operation – The Definite Integral: Properties - The Riemann Integral - Applications of Integrals - Integration by Parts and Substitution – Difference Equations: First- and Second Order Difference Equations: Variable and Constant Coefficients - First-Order Differential Equations, Separable and Linear Equations -Stability - Second-Order Differential Equation - Applications.

### Suggested Readings

Approved by the Board of Studies in its 1st meeting held on 16th June, 2016 and in AC Sub Committee held on 18th June, 2015.

- 1. Sydsaeter, K. and P. J. Hammond, (2009), *Mathematics for Economic Analysis*, Pearson. Chiang, A. C. and K. Wainwright, (2005), *Fundamental Methods of Mathematical Economics*, McGraw-Hill Companies Inc. New York, NY.
- 2. Simon, P. C. and L. Blume, (1994), Mathematics for Economists, W.W. Norton.
- 3. Angel de la Fuente, (2000), *Mathematical Methods and Models for Economists*, Cambridge University Press.
- 4. Rangarajan K. Sundaram, (1996), *A First Course in Optimization Theory*, Cambridge University Press.
- 5. Avinash K. Dixit, (1990), Optimization in Economic Theory, Oxford University Press, UK.

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Proposal for Starting M.A in Economics (2 Year P.G. Programme)



# Guru Gobind Singh Indraprastha University Dwarka, New Delhi – 110078

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