The students will have THREE Core courses and will have to select ONE Non-Core course in each of the two semesters, in M.A. Part I. There will be a total of FOUR courses in each of the two semesters for M.A in Economics.

(Part I. Each course will have FOUR credits. Syllabi only for University Department of Economics)

M.A. Part I Semester I

Core Courses

EC-101 Micro Economic Analysis I
EC-102 Public Economics –I
EC-103 International Trade

Non-Core Courses

(Any one course to be selected from below)

EC -104 Fundamentals of Mathematics and Statistics
EC – 105 Mathematical Economics

DETAILED SYLLABUS :

SEMESTER I – Core course

EC-101 Micro-economic Analysis - I

Topic I: Introduction

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.
3) Theory of Revealed Preference, Index Numbers.
5) Concept of Consumers’ Surplus.

**Topic III: Production Theory**

1) Production Function – One input, two inputs: Isoquants.
2) Law of Variable Proportions, Returns to the Variable Factor, Returns to Scale, Cobb- Douglas Production Function.
3) Producer’s equilibrium with one and two inputs.
4) Cost Curves, Total, Average and marginal Cost Curves, Short Run and Long Run Costs, Economist concept of cost.
6) Concept of Producers’ Surplus.

**Topic IV: Equilibrium.**

1) Short Run, Long Run Equilibrium of a Single Firm under Competitive conditions.
2) Partial and General Equilibrium.
3) Edgeworth Box Depiction of Competitive market equilibrium involving only exchange.

**Recommended Books:**


**SEMESTER I – Core course**

**EC-102 Public Economics - I**

**Topic 1 – Introduction**


**Topic 2 – Rationale for Public Policy**

**Topic 3 – Public Expenditure**


**Topic 4 – Taxation**


**Topic 5 – Public Debt**


**Recommended Books –**

Musgrave R. A. and Musgrave P. S. – The theory of Public Finance (different editions)

Stiglitz Joseph – Economics of the Public Sector (different editions)

Herber – Modern Public Finance (different editions)

**SEMESTER I – Core course**

**EC-103 International Trade**

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

**Topic 2 – New trade theories**
New theories of trade, product life cycle and technology gap models, Preference similarity and intra-industry trade, economies of scale and monopolistic competition - Krugman, Theory of economic geography – Krugman, Neo-Heckscher Ohlin theorem
Topic 3 – Terms of Trade
Concepts of Net Barter Terms of Trade, Gross Barter Terms of Trade, factors affecting
Terms of Trade

Topic 4 – Trade Policy
Free trade vs. controlled trade, 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) Effects under general equilibrium, Stolper – Samuelson theorem

Topic 5 – Regional Integration
Customs Unions: Features of customs union theory. Trade creation and trade diversion
under customs union (with graphical treatment), the creation of European Union

Topic 6 – GATT and WTO
International trade agreements. Dunkel proposal. WTO, Important Agreements under
WTO, major developments since 1995, Expected effects on the Indian economy.

Recommended books

and Policy. Pearson Education Publication New Delhi

Hill, Kogakusha, Japan.


River, N.J., New York.

London.

SEMESTER I – Optional Course

EC-104 Fundamentals of Mathematics and Statistics

Topic - 1 Numbers and operations of numbers
Rational numbers and irrational numbers, real numbers, integers and fractions, squares,
cubes, square roots and cube roots by prime factorization, negative numbers

Examples of very large and very small numbers such as million/billion/trillion, positive,
negative, zero and fractional indices, laws of indices

Topic – 2 Ratio, rate and proportion
Ratios involving rational numbers, writing a ratio in its simplest form, average rate, direct
and inverse proportion, problems involving ratio, rate and proportion

Topic – 3 Percentages
Expressing one quantity as a percentage of another, comparing two quantities by percentage, percentages greater than 100%, increasing/decreasing a quantity by a given percentage, reverse percentages, problems involving percentages

Topic 4 Set Theory, Relations, and Functions of Single Variables
Set language and notation, Types of Functions, functions and graphs, Calculus of Single Variable Functions, Limits and Continuity, Derivatives of Single Variable Functions, (Optimization Techniques, Integration)

Topic 5 Matrix Algebra
Display of information in the form of a matrix of any order, interpreting the data in a given matrix product of a scalar quantity and matrix problems involving the calculation of the sum and product (where appropriate) of two matrices

Topic 6 Basic Concepts in Statistics
Data and data analysis, graphs and diagrams, frequency distributions, Measures of Central Tendency (Mean, median, Mode), Dispersion (Standard Deviation)

Recommended Books:
1. Introduction to Mathematical Economics – Edward Dowling
2. Mathematics for Economists - Simon and Blume
3. Fundamental Methods of Mathematical Economics – Alpha Chiang
4. Business Mathematics – Rajagopalan and Sattanathan

SEMESTER I – Optional course

EC-105 Mathematical Economics

Topic 1
Review and Basic Applications in Economics

Topic 2
Exponential and Logarithmic Functions
1. Single Variable Calculus
   a. Marginal Concepts
   b. Elasticity
   c. Optimization Techniques in Consumer and Production Theory
   d. Consumer and Producer Surplus

Topic 3
Multivariate Calculus
   a. Economic Functions
   b. Unconstraint Optimization
c. Constraint Optimization

d. Special Matrices (Jacobian and Hessian)

e. Comparative Statics and Concave Programming

**Topic 4**
First Order Differential Equation and First Order Difference Equations
Second Order Differential Equations

**Topic 5**
Growth Models

**Books:**

5. Introduction to Mathematical Economics – Edward Dowling
6. Mathematics for Economists - Simon and Blume
7. Fundamental Methods of Mathematical Economics - Chiang
UNIVERSITY OF PUNE
DEPARTMENT OF ECONOMICS

REVISED SYLLABUS FOR M.A. ECONOMICS – CREDIT SEMESTER COURSE AT THE
DEPARTMENT OF ECONOMICS, UNIVERSITY OF PUNE

(Syllabi for Semester I and semester II to be started from July 2012)

The students will have THREE Core courses and will have to select ONE Non-Core course in each of the two semesters, in M.A. Part I. There will be a total of Four courses in each of the two semesters for M.A.

(Part I. Each course will have FOUR credits. Syllabi only for University Department of Economics)

SEMESTER II – Core course

EC-201 Micro-economic Analysis – II

Topic I: Classification of Markets
   1) Classification of Markets. Various types of Markets.

Topic II: Monopoly
   1) Measurement of Monopoly power.
   2) Equilibrium of a Firm under Monopoly.
   3) Price Discrimination under Monopoly, different types.
   4) Comparison of monopoly and perfectly competitive market outcomes.
   5) Regulation of Monopoly Power.

Topic III: Imperfect Competition
   6) Monopolistic Competition, Price and Non-price competition, Equilibrium.
   7) Product Differentiation, Selling Costs and Excess Capacity.
   8) Oligopoly, Basic market structure, Non-collusive oligopoly, Cournot-Bertrand Solution.
   9) Collusive oligopoly, Cartels, Price and Output Determination

Topic IV: Alternative Theories of the Firm
   1) Goal of Profit Maximization and Alternative Theories of the Firm.
   2) Baumol’s Sales Revenue Maximization Model.

Topic V: Theory of Distribution and Welfare Economics
   1) Marginal Productivity Theory. Product Exhaustion theorem. (Euler’s Theorem)
   2) Pigou’s Welfare Theorem
   3) Pareto Optimality
   5) Arrow’s Impossibility Theorem.
Recommended Books:

SEMESTER II – Core course

EC-202 Public Economics – II

Topic 1 – Fiscal Policy

Topic 2 – Fiscal Federalism
Fiscal federalism in India – Vertical and horizontal imbalance – Assignment of function and sources of revenue – Constitutional provisions – Finance commission and planning commission – Devolution of resources and grants – Theory of grants – Resource transfer from union to state – Criteria for transfer of resources – Center-state financial relations in India – Problems if states’ resources and indebtedness – Transfer of resources from union and state to local bodies.

Topic 3 – Indian Tax system
Revenue of the Union – State and local bodies – Major taxes in India – Base of taxes – Direct and indirect taxes – Taxation of agriculture – Expenditure tax – Reform in direct and indirect taxes – Taxes on Services –Non-tax revenue of center, state and local bodies – Analysis of central and state government budgets – Fiscal situation of the PRIs - Trends in public expenditure and public debt

Topic 4- Issues in India’s Fiscal system
Reports of Finance Commissions in India - Fiscal crisis and fiscal sector reforms in India’s – India’s response to Global economic shocks.

**Recommended Books:**
Ulbrich – Public Finance in Theory and Practice
Bagchi A. – Readings in Public Finance

**SEMESTER II – Core course**

**EC-203 International Finance**

**Topic - 1 – Balance of payments**

**Topic - 2 Exchange rates**

**Topic – 3 Exchange control**
Convertibility on current account and capital account, Exchange control: objectives of exchange control. Methods of exchange control, Indian Rupee and its fluctuations in the international currency markets.

**Topic – 4**
Optimum currency area theories - Factor mobility theory, propensity to inflation theory - the process of development of Euro as an optimum currency area

**Topic – 5**
International financial movements. Portfolio and direct investments and their impact on the economy. Multinational and transnational corporations and their role in the international financial movements.

**Topic – 6**
Rise and fall of Bretton Wood and the emerging International Monetary system, IMF, mechanism of membership quota and borrowing, Conditionalities. Evaluating the contribution of IMF, 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)

**Prescribed and recommended readings:**
4. Maurice Levi: International Finance
EC-204 Agriculture Economics

Topic 1 – Introduction
Various agricultural activities – Fundamental differences between agricultural economics and economics of other businesses – The Cobweb phenomenon – Major types of organizations in agriculture – Concept of a farm firm – Farm management decisions – Limitations to optimal decision making in farm management.

Topic 2 – Demand and Supply of agricultural products
Factors affecting supply – Supply function and lag in supply of agricultural commodities – Cobweb phenomenon – The problem of supply response – Fluctuations in supply and its impact. Factors affecting demand – Demand function in agriculture – Elasticity of demand for farm products

Topic 3 – Price determination in agriculture

Topic 4 – Major aspects of Indian Agriculture

Topic 5 – Agricultural Policy

Recommended Books –
Drummond E. V. and Goodwin J. W. – Agricultural Economics
Penson J, Capps O and Rosson – Introduction to Agricultural Economics
Sadhu and Singh - Agricultural Economics
Reddy R and Sastry D - Agricultural Economics
Lakhi and Singh – Agricultural Economics

EC-205 Statistics

Topic 1 Introduction to statistics
Overview of Basic statistical concepts, central tendency and dispersion, Skewness and Kurtosis

Topic 2 Correlation and regression
Correlation coefficient, Standard error and regression equations, one variable regression analysis

**Topic 3 Fundamentals of Probability**
Random Variable, and Mathematical Expectation, Theoretical Distributions (Binomial, Normal, and Poisson)

**Topic 4: Sampling Techniques**
Fundamentals of Sampling, Estimation, Statistical Inference, Chi-Square Test, F-Distribution, ANOVA, Association of Attributes, Non-Parametric Tests

**Topic 5: Index Numbers and Time Series**
Introduction to index numbers, construction of indices, different forms of indices
Introduction to time series

**Books:**
1. Comprehensive Statistical Methods - Arora, P.N.; Arora, Sumeet; Arora,
2. Statistical Methods – S. P. Gupta