# COURSE STRUCTURE

## M.A Economics

### Semester-I

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course Code</th>
<th>Core Courses</th>
<th>Credit</th>
<th>Internal marks</th>
<th>University Exam Marks</th>
<th>Total Marks</th>
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<tr>
<td>1</td>
<td>MAE-111</td>
<td>Micro Economics-I</td>
<td>4</td>
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<td>2</td>
<td>MAE-112</td>
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<td>MAE-114</td>
<td>Economics of Development</td>
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| Total   | 16          | 160                    | 240    | 400            |

### Semester-II

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<th>Sr. No.</th>
<th>Course Code</th>
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<td>Statistical Methods</td>
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Choice Based Complementary Electives courses (students are required to opt any one out of the following courses)
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<th>Sr. No.</th>
<th>Course Code</th>
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Choice Based Complementary Electives courses (students are required to opt any one out of the following courses)

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| Total | 16 | 160 | 240 | 400 |

Semester-IV
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<th>Sr. No.</th>
<th>Course Code</th>
<th>Core Courses</th>
<th>Credit</th>
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Total: 16 | 160 | 240 | 400
Course Objectives and Outcomes

Semester -I

Course Title: Micro Economics –I

Course Code: MAE-111

Course Objectives:

The course provides an introduction to a core area of economics known as Microeconomics. It considers the operation of a market economy and the problem of how best to allocate society's scarce resources. The course considers the way in which various decision making units in the economy (individuals and firms) make their consumption and production decisions and how these decisions are coordinated. This course also includes the economic behavior of individual units, in particular consumers and firms; the general equilibrium theory; expected utility and uncertainty; welfare economics; and the fundamentals of the game theory.

Contents:

This course comprises of five units:

Unit I: Choice and Demand

Theory of Consumer Behaviour, Utility and Indifference Curve Approaches, Indirect Utility Function, Budget Line, UtilityMaximisation Problem, Income and Substitution Effect-Slmutsky and Hicks, Ordinary Demand Curve and Compensated Demand Curve, Applications of Indifference Curve Analysis, Revealed Preference Hypothesis, Market Demand and Elasticity- Market Demand Curves .

Unit II: Theory of Production and Costs


Unit III: Market Structure

Price and Output under Perfect Competition-short run and long run equilibrium of a firm, short run supply curves, Equilibrium of a Firm and industry- short run and long run,
Monopoly- short run and long run equilibrium price and output determination, Various Forms of Price Discrimination, Price and Output Determination under Monopolistic Competition- short run and long run analysis.

**Unit IV: Oligopoly**


**Unit V: Factor Pricing**


**Course Delivery**

- Lectures
- Presentations
- Group Discussions

**Assessment**

- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks
- Internal Exam: 40 marks
- External Exam: 60 marks

**Course Outcomes:**

On the successful completion of the course, students will be able to:

**CO1:** Explain the various types of markets and how competitive markets organize the allocation of scarce resources and the distribution of goods and services.

**CO2:** Relate the basic economic theory and principles to current microeconomic issues and evaluate related public policy

**CO3:** Use economic models to analyze a situation in terms of economics
**CO4:** Communicate their knowledge and understanding of economic issues using written, verbal and visual expression

**CO5:** Understand the broader social consequences of economic decisions making

**References:**


Course Title: Macro Economics-I

Course Code: MAE-112

Course Objective:

The Objective of the course of Macroeconomics-I is to give student’s thorough understanding of the principles of economics as applicable at the Macro level, dealing with the economy as a whole. It also deals with the study of National Income-Accounting.

Content:

Unit I  Unit I: National Income and Social Accounting
National Product– Concept and Measurement, National Income and Welfare, GNP, welfare and basic Needs; Circular flow of income in two, three and four sector economy.Social accounting– concept and importance; Main features and types of social accounts; Matrix presentation of social accounting.Balance of payment accounting;

Unit-II: Classical Approach

Unit III: Keynesian Approach
Simple Keynesian Model, Consumption function; Keynes’s law of consumption; absolute income, relative income, life cycle income and permanent income hypothesis; Investment function, Keynesian approach (MEC) approach; Accelerator principle; Keynesian Multiplier–static and dynamic, Keynesian models of Income and employment, Aggregate demand and aggregate supply function– Income determination in three sector model;Income determination in the four sector model including foreign spending.

Unit IV: Theories of Trade Cycle
Concept of multiplier, Balanced budget multiplier, Foreign trade multiplier, Anatomy and indicators of trade cycle; Multiplier-accelerator interaction theories of trade cycle–Samuelson, Hicks; Keynes and Kaldor model of trade cycle; Real business cycle theory; Control of trade cycle.

Unit V: Neo- classical and Keynesian Synthesis
IS-LM model; Derivation of IS-LM curves; Factors causing shift in the IS-LM schedule; Extension of IS-LM model with government sector; Extension of IS-LM with labour marketand flexible price; Monetary and fiscal policy– tools and relative effectiveness

Course Delivery:
• Presentation
• Lectures
• Group Discussion

Assessment:
• Presentation/Assignment: 14 marks
• Mid Term Test 16 marks
• Attendance: 10 marks
• Exam (Internal) 40 marks
• Exam (External) 60 marks

Course Outcomes:

On the successful completion of the course, students will be able to:

CO 1 National Income and Social Accounting: Application of Techniques for Data Collection data on factor incomes generated by economic sectors, Importance of Primary sector, Secondary sector and Tertiary sectors, Use of Methods for Calculation the National Income to measure their relative contributions to national income.

CO 2 Classical Approach: Reference to different group of economists, their personal opinion about Income and output determination. Role of saving and Investment for capital formation for production of Goods and services in the economy. How investment is made for establishment of further producing economic activity in classical view. To understand features of Classical model, supply determined nature of output.

CO 3 Keynesian Approach: Reference to different group of economists, their personal opinion about Income and output determination. Application of modern approach to Income generation. Pitfalls in conventional approaches to aggregate demand.

CO 4 Neo Classical and Keynesian Synthesis: Reference to different group of economists, their personal opinion about Income and output determination. Reference to different group of economists, their personal opinion about Income and output determination.

CO 5 Inflation and Unemployment: How to overcome the obstacles like Inflation and decline in real value of money over time in order to raise the level of employment and income generation. In this section we study Classical and modern economists view of inflation, factors determining the Cost push and demand pull inflation.

References:


Course Title: Mathematical Economics
Course Code: MAE – 113

Objectives: The objective of this course is to impart students with the knowledge of basics of mathematical aspects which are applicable in economics related issues.

Contents: This course consists of five units.

Unit I: Basic Concepts
Concept of variable, constant and parameter; Set theory– sets and set operations; Concept of relation and function– types of function; Limit and continuity, Equations– linear, quadratic and simultaneous equation.

Unit II: Differential Calculus
Derivative– rules of differentiation; Partial derivatives; Higher order differentiation; Euler’s Theorem; Uses of differentiation in economics– constrained optimization, Lagrangian multiplier, problems of maxima and minima in single and multi-variable functions. Profit maximisation Comparative and Static Dynamics, Linearization of Functions.

Unit III: Integral Calculus
Concept of integration– simple rules of integration, indefinite and definite integral; Fundamental theorem of integral; Properties of definite integral; Application of integrals in economics– consumer’s surplus, producer’s surplus and growth rates.

Unit IV: Differential and Difference Equation
Concepts; Solutions of first order differential and difference equations; Applications of differential and difference equation– phase diagram, stability conditions, lagged income determination model, Cobweb model, Samuelson multiplier acceleration interaction model.

Unit V: Matrix Algebra
Concept of matrix– their types, simple operations on matrices; Determinants & their basic properties; Inverse of matrix; Jacobian, Hessain and higher order Hessian rule; Rank of a matrix; Solution of a system of linear equations using matrices; Solution of simultaneous equations through Cramer’s rule. Input-Out Put Analysis, Hawkins-Simon Condition, IS-LM Model.

Course Delivery:
- Lectures
- Presentations

Assessment:
- Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks

**Course outcomes:**

**CO-1:** Brief revision of some basic mathematical concepts to be able to understand subsequent advanced mathematical tools.

**CO-2:** Understand the fundamental concepts of Optimization Techniques for constrained and unconstrained problems.

**CO-3:** Compute Differential Functions and their use in Economics.

**CO-4:** Understand basics of Integral Calculus with applications in economics.

**CO-5:** To be able to perform basic operations on matrices and their application in Economics.

**References:**


Course Title: Economics of Development

Course Code: MAE-114

Course Objectives:

This is an advanced course in development economics. This course aims to provide students with an economic understanding of the origins of uneven patterns of economic development, as well as an understanding of policies that can be applied in developing countries and how we can measure their effectiveness.

Contents

Unit I: Social and Institutional Aspects of Development


Unit II: Theories of Development


Unit III: Sectorial Aspects of Development
Role of Agriculture in Economic Development, Transformation of Agriculture and Rural Development, Complementarily between Agriculture and Industry, Rationale and Pattern of Industrialization in developing countries, Choice of Techniques and Appropriate Technology.

**Unit IV: Economics Policies, Planning and Development**


**Unit V: Development Theory- International Aspects**

International Trade as an engine of growth, Static and Dynamic Gains of Trade, Prebisch-Singer versus Free Trade, Import Substitution versus Export Promotion, Dual Gap Analysis, WTO and Developing Countries.

**Course Delivery**

- Lectures
- Presentations
- Group Discussions

**Assessment**

- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks
- Internal Exam: 40 marks
- External Exam: 60 marks

**Course Outcomes:**

On the successful completion of the course, students will be able to:
CO1: To acquaint them with the social and institutional aspects of development.

CO2: To familiarize them with major theories of economic development particularly focusing on underdeveloped economies.

CO3: Understanding of the role of Agriculture, Rural development and industries in Economic Development.

CO4: Analyse macroeconomics policies and planning in Economics development.

CO5: Understanding the development theories under the International perspective.

References


Semester – II

Course Title: Microeconomics - II

Course Code: MAE-221

Course Objectives: This course builds on the microeconomic principles studied in the Microeconomics I course and provides an analysis of the way in which the market system functions as a mechanism for coordinating the independent choices of individual economic agents. It develops a basis for evaluating the efficiency and equity implications of competition and other market structures, and a perspective on the appropriate role of government. Included are the study of consumer choice, production and cost, market structure, and market failure. Given the emphasis on applications, it will put more emphasis on the mastery of theoretical concepts and important part of the course.

Course Description: This covers advanced topics in Microeconomics like advanced theories of firm, distribution theories, General Equilibrium, Welfare Economics and also covers uncertainty.

Contents

Unit I: Other Theories of Firm

Critical Evaluation of Marginal Analysis, Average Cost Pricing, Bain’s Limit Pricing Theory and Sylos-Labini Model, Baumol’s Static and Dynamic Models of Sales Revenue Maximisation, Marris’s Model of Managerial Enterprise, Williamson’s Model of Managerial Discretion. Coase Concept of the Firm.

Unit II: Distribution Theories

Macro Theories of Distribution- Assumptions, Principles, Limitations and Comparative Analysis of Ricardo, Marx, Kalecki and Kaldor.

Unit III: General Equilibrium


Unit IV: Welfare Economics

**Unit V: Uncertainty and Information**


**Course Delivery**

- Lectures
- Presentations
- Group Discussions

**Assessment**

- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks
- Internal Exam: 40 marks
- External Exam: 60 marks

**Course Outcomes**

On successful completion of this course students will be able to:

**CO1:** Explain consumers’ and firms’ behavior using mathematical tools

**CO2:** Develop communications skills through the presentation of your work, interactions during tutorial sessions, and appropriate use of the discussion board

**CO3:** Apply economic theory to diverse real-world situations

**CO4:** Analyze economic problems and prescribe solutions

**CO5:** Model economic situations in a logical, rigorous, and precise manner

**References**


4) Pindyck R. S. and Rubinfeld, D. L. 1999, Microeconomics, Prentice Hall of India


Course Title: Macro Economics- II

Course Code: MAE-222

Course Objective:

Macroeconomics in this paper establishes the functional relationship essential for the proper comprehension of the different issues and policies at aggregate level. Macroeconomics is more scientific and blends itself with empirical economic knowledge. This equips the students to understand systemic facts and latest theoretical developments for analysis. Macroeconomic imbalances and correcting policies are part of the New Economic Policy implemented in India.

Contents

Unit I: Supply of Money
Model of bank deposit determination; H- theory of money supply; Money multiplier; Budget and money supply; RBI approach to money supply; Components of money supply in India, Money supply in open economy. Monetary Policy in India; Status and Issues.

Unit II: Demand for Money
Classical approach to demand for money– Fisher’s and Cambridge approach; Keynes’s liquidity preference approach; Post-Keynesian approaches to demand for money– Baumol’s approach of transaction demand for money; Tobin portfolio optimization approach; Friedman’s quantity theory; Patinkin’s real balance effect; Pigou’s effect.

Unit V: Inflation and Unemployment
Classical, Keynesian and monetarist approach to inflation; Demand pull and cost push inflation; Bent Hansen model of demand pull inflation; Structuralist theory of inflation; Phillips curve – short run and long run; Keynesian views of the output-inflation trade off; Tobin views on Phillips curve; Natural rate of unemployment hypothesis; NAIRU and Phillips curve; Strategies to control inflation. Indian Inflation Status and Issues

Unit IV: Macroeconomics in Open Economy
IS-LM model in open economy; LM curve and the balance of trade; Zero capital mobility; Implication of capital mobility for macroeconomic policy; Mundell-Fleming model; Relative effectiveness of monetary and fiscal policies under imperfect and perfect capital mobility.
Unit V: Recent Developments in Macroeconomic Theory
Monetarism—central propositions, reformulation of quantity theory of money; Newclassical economics—theory of rational expectations and its implication; New classical macroeconomics, Supply side economics. New Keynesian Economics

Course Delivery:
- Presentation
- Lectures
- Group Discussion

Assessment:
- Presentation/Assignment: 14 marks
- Mid Term Test 16 marks
- Attendance: 10 marks
- Exam (Internal) 40 marks
- Exam (External) 60 marks

Course Outcomes

**CO 1 Supply of Money:** Addressing the subject matter of Money supply determination through bank deposit determination. It also portrays the role played by money supply in determination money supply. It signifies the role of RBI in money creation.

**CO 2 Demand for Money:** Introduces the students to Classical neo classical view about money. And different opinions about demand for money.

**CO 3 Inflation and Unemployment:** study Classical and modern economists view of inflation, factors determining the Cost push and demand pull inflation, Types of inflation, Structural theory of inflation and relevance of Phillips Cure in developed nations thereof. Relationship between Inflation and unemployment.

**CO 4 Macroeconomics in Open Economy:** Introduces students with IS and LM Model and simultaneous equilibrium between Both Goods and Money market. The role played by Investment and marginal efficiency of capital for determining the rate of interest and Income equilibrium.

**CO 5 Developments in Macroeconomic Theory:** Recent developments in the monetary economics. Theories of rational expectations and new Keynesians economics.

References:
2. Dornbusch, Fischer and Startz, *Macro Economics*

8. Srivastava M.N. *Perspective in Monetary Theory*.
Course Title: Statistical Methods

Course Code: MAE – 223

Course Objectives:

The course introduces basic and advanced statistical concepts and methods that are vital for understanding and interpretation of various economic issues and concepts. The course is essential for conduct of research and basic data analysis, which has been increasingly become popular in all walks of life. Statistics is one of the most useful subjects in academic, professional and corporate world. In this respect the course is aimed at enhancing the understanding, interpretation and data analysing skills of students.

Contents: This course comprises of five units

Unit I: Elementary Statistics

Introduction to Basic Statistics; Data Collection Methods; Types of Data; Frequency Distribution: Measures of Central Tendency; Measures of Dispersion, Range, Quartile Deviation, Mean Deviation, Standard Deviation, Moments Skewness and Kurtosis, with their characteristics.

Unit II: Correlation and Regression

Correlation- Methods of Measuring Correlation– Graphical Methods and Algebraic Methods– Karl Pearson’s Coefficient of Correlation and Spearman’s Rank Correlation Coefficient; Properties of Correlation Coefficient; Partial and Multiple Correlations; Simple Linear Regression, Multiple Regression.

Unit III: Probability and Distribution

Meaning and Definition of Probability– Classical and Empirical Definitions of Probability; Deterministic and non-Deterministic Experiments; Types of Events; Laws of Addition and Multiplication; Conditional Probability and Concept of Independence; Baye’s Theorem and its Applications. Probability Distributions, Normal Distribution, Binomial Distribution, Poisson Distribution& their Characteristics.

Unit IV: Theory of Sampling and Estimation

Unit V: Hypothesis Testing
Testing of Hypothesis; Level of Significance, Confidence Limits and Critical Region; Type I and Type II Error; One Tailed and Two Tailed Tests; Parametric Tests– A Conceptual Introduction of Z– Test, T– Test, Chi– Square Test, F– Test. Introduction to Nonparametric Methods, Principal Components and Factor Analysis, Analysis of Variance – One Way.

Course Delivery
- Lectures
- Presentations

Assessment:
- Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks

Course Outcomes:

CO-1: Introducing the basic Statistical concepts and appreciate the importance and use of Descriptive statistics.

CO-2: To be able to understand and use correlation and regression analysis in data analysis and interpretation.

CO-3: To understand data and Probability Distributions as fundamentals tools for Inferential Statistics.

CO-4: To understand the basics of Sampling and data collection using sampling techniques.

CO-5: To be able understand basics of hypothesis testing and some basic techniques and tests used in data analysis and research.

References

10. R. L. Schaeffer (1990), Introduction to Probability and its Applications, Pws-Kent
Course Title: The Principles of Banking

Course Code: ECO-221

Course Objectives: This course links the fields of macroeconomics and central banking. The role of money in the economy and the impact of monetary policy on the macroeconomy are examined. The course aims at providing students with the means to analyse monetary questions and institutions. It is not a course designed to further technical expertise in the instruments used in financial markets.

Theories will be introduced during the lectures. Practical applications to current issues in money and banking will be discussed during the bi-weekly seminar. This course links the fields of macroeconomics and central banking. The role of money in the economy and the impact of monetary policy on the macroeconomy are examined. The course aims at providing students with the means to analyze monetary questions and institutions. It is not a course designed to further technical expertise in the instruments used in financial markets.

Course Outcomes:

On successful completion of this course, students will be able to:

CO1: Identify the economic principles underlying the operation of financial intermediaries.

CO2: Explain how central banks conduct monetary policy.

CO3: Use models to analyze monetary and macroeconomic issues.

CO4: Conduct a theoretical analysis of real-world issues and phenomena.

CO5: Explain the importance and relevance of money in economic world.

References:

1. Geoffrey Crowther: An Outline of Money, Read Book Publisher

2. Luckett, D.G., : Money and Banking, McGraw-Hill Kogakusha, Ltd.

3. L.V. Chandler: An Introduction to Monetary Economics, Manchester University Press.
Course Title: International Economics

Course Code: MAE-331

Course Objective: The course aims to familiarize students with different schools of thought investigating how international trade is beneficial for all trading countries, and factors affecting the dynamics of imports and exports of an economy. The course is intended to acquaint students about various policy options available for monetary authorities to deal with situations of macroeconomic instability at a time when economies are increasingly becoming globalized. Besides, it also aims at enhancing awareness about the anatomy of the international economic crisis that affected global economy, in the past several decades.
globalized. Besides, it also aims at enhancing awareness about the anatomy of the international economic crisis that affected global economy, in the past several decades.

Contents:
UNIT -I: Theory of International Trade – I

UNIT -II: Theory of International trade- II

UNIT- III: Gains from Trade and International Trade Policy
Concepts of Terms of Trade, their uses and limitations, Hypotheses of Secular Deterioration in Terms of Trade, Reasons for Deterioration in Commodity Terms of Trade and Policy Implications for Developing Countries; Trade as Engine of Growth: Concept of Immiserizing Growth, Empirical Evidence and Policy Issues; Theory of Interventions: Tariffs, Quotas and Non-Tariff Barriers to International Trade, Economic Effects of Tariffs and Quotas (Partial and General Equilibrium Analysis); Theory of Optimum Tariff, Concepts of Nominal and Effective Tariffs.

UNIT -IV: Balance of Payments


Course Delivery
-Lectures
-Presentations
-Group Discussions
Assessment
- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks

Course Outcomes:

CO1: After going through this course, the students will be able to explain logically why international trade is beneficial for trading countries.

CO2: They will have understanding of the modern theoretical insights regarding different aspects of the international trade not covered by the traditional theories.

CO3: They will understand the gains from trade and the implications of various trade policies on the welfare of nations.

CO4: The students will be familiarized with various concepts regarding the Balance of Payments and available policy options to achieve equilibrium in both internal and external sectors of the country.

CO5: They will be acquainted with contemporary issues in international economics including various financial crisis across the world over past few decades.

References

Course Title: Public Finance

Course Code: MAE-332

Course Objectives:
The Course aims to equip the students with focused and relevant knowledge about the theoretical and empirical developments in Public Finance and to give students a thorough understanding of the principles of public Economics that apply to Macro Economic issues Like Inflation, Indian Tax Policy, Issues in the social Sector, and Public finance system in view of Indian Budget. Procedures connected to Horizontal and vertical Devolution in view of rate of Unemployment and Growth.

Contents:
Unit -I: Issues in Macro Economics
Definition and measurement of inflation, Types of inflation, Impact of inflation, Measures to control Inflation. Monetary and Fiscal Policies: Objectives, Instruments. Inflation, Measurement of Inflation: WPI & CPI in India- System of weighting and issues in computation,

Unit- II : Indian Tax Policy
Features and Assessment of The Indian Tax System, Role of Taxation ( Tax Policy), Role of public Borrowing in mobilization of Resources, External Finance, Grants Vs Foreign Loans, Role of deficit financing in mobilization of resources, Surpluses of the public Enterprises.

Unit- III : Issues in Social sector and Public policy

Unit-IV: The Public Budget and Federal Finance
The Kinds of Budget, Classification of Budgets: Economic Classification and Functional Classification, Performance and Programme Budgeting System (PPBS), Zero-Base
Budgeting, Balanced Budget-Arguments for Balanced Budget, Arguments against Balanced Budget, The Balanced Budget Multiplier, Fiscal Policy and Stability

**Unit-V: Wages and Unemployment**

Business cycle- features, phases, causes and consequences, Wage rigidity and structural unemployment, Relationship between Inflation and unemployment in closed and open economy, Monetary and Fiscal policies as Stabilizers, Fiscal Road map and debt relief to the states.

**Course Delivery**

- Lectures
- Presentations
- Group Discussions

**Assessment**

- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks

**Course Outcomes:**

On completion of the course students would be able to:

**CO1:** Understand the sources of finance both public and private, demonstrate the role of government to correct market failures and possible advantage of public financing.

**CO2:** Attain the advantages and knowledge of public investments and other government expenditures.

**CO3:** Understand the causes of growing public expenditures for various programmes and policies within and outside the country.

**CO4:** Understand the possible burden, benefits and distribution of various types of taxes among various classes of people, know the general trend and impact on general welfare and arouse them to suggest good and bad tax system.

**CO5:** Understand the needs of public borrowing from all possible sources to meet necessary public investment/expenditures. Also be alerted to find sources for repayment.

**References**
Course Title: Basic Econometrics

Course Code: MAE-333

Course Objective: The course is intended to familiarize students with different types of econometric models and the procedure to use them for the analyses of complex datasets.

Contents:

Unit-I: Basic Econometrics

Nature, meaning and scope of Econometrics; Methodology of Econometrics; Nature and types of Data for econometrics; Concept of Population and sample Regression Function; Linear regression model – Assumptions, Estimation (through OLS approach) and properties of estimators; Gauss-Markov Theorem; Interval estimation and Hypotheses testing, Tests of significance and confidence interval approach

Unit II: Extension of Two Variable Linear Regression Models

Functional forms of Regression Models; Log-Linear Model, Semilog Models, Reciprocal Models, Logarithmic Reciprocal Model, Multiple Regression Model– Assumptions and Estimation; Concept of Coefficient of Determination for Linear and Multiple Regression Model (\( r^2 \) and \( R^2 \) And Adjusted \( R^2 \))

Unit III: Problems in Regression Analysis

Multicollinearity– reasons, consequences, methods of detection, important remedial measures. Heteroscedasticity- reasons, consequences, methods of detection (Spearman rank correlation test, Goldfeld and Quandt test, Glejser test), important remedial measures; Autocorrelation- reasons, consequences, methods of detection (Durbin-Watson statistic), important remedial measures.

Unit IV: Dummy Variable and Qualitative Response Models

Dummy variable – use of dummy variables, regression with dummy dependent variables for measuring the change of parameter. Qualitative Response Models- linear probability model (LPM);LogitModel;Probit Model; Tobit Model.

Unit V: Dynamic Econometric Models

Autoregressive and distributed lag models; Role of lag in economics; Endogenous lagged variable– Koyak geometric lag model, Nerloves’s Partial adjustment model, Cagan’s adaptive expectations model; Exogenous lagged variable– Almon approach to distributed-lag models

Note: Emphasize will be laid down the practical application from all technique in each unit
Course Delivery

- Lectures
- Presentations
- Group Discussions

Assessment

- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks

Course Outcomes:

CO1: The students will be familiarized with the basic concepts of econometrics including the procedure of hypothesis testing and various types of data.

CO2: They will be acquainted with various concepts regarding multiple regression analysis.

CO3: They will be able to identify various econometric issues in regression analysis and take appropriate remedial measures.

CO4: They will be able to make use of dummy variable and qualitative response variable regressions to analyze qualitative variables.

CO5: They will be able familiarized with dynamic models and their uses.

References:

Course Title: Environmental Economics

Course Code: MAE-336

Objectives: Environmental challenges are the highlight of present day world, which has been the focus of public and policy makers at the local national and global level. In this regard the course is meant to provide some insights into the application of economic theory in the design and implementation of public policy related to management of Natural resources and solution of environment problems. Units incorporated in this paper are devoted to issues environmental economics, the models of optimal use of natural resources, sustainable development, and environmental resource problems and regulation in India.

UNIT-I: Concepts and Measurement of Environmental Values
Environmental and resource economics; Concepts; Environment and emerging development issues; Markets and externalities; Property rights and externalities; Common property resources; Environmental valuations: Method based on observed market behaviour; Hedonic property model, household production model (travel cost method and household health production function); Methods based on response to hypothetical markets, Contingent valuation method.

UNIT-II: Theory of Environmental Policy
Environmental externalities -Pigouvian taxes and subsidies, marketable pollution permits and mixed instruments; Coase bargaining solution and collective action; Informal regulation and the new model of pollution control; Monitoring and enforcement of environmental regulation; Environmental institutions and – grassroots movements; Global environmental externalities and climatic change; Tradable pollution permits and international carbon tax; Trade and environment in WTO regime.

UNIT-III: Natural Resource Management and Sustainable Development
Theories of optimal use of exhaustible and renewable resources; Environmental and development trade off: Concept of sustainable development; Measurement and indicators of sustainable development; Integrated environmental and economic accounting; Measurement of environmentally corrected GDP; Macroeconomic policies and environment.

UNIT-IV: Environmental and Natural Resource Management Policies in India
Mechanism for environment regulation in India; Environmental laws and their implementation; Policy instruments for controlling water and air pollution: Groundwater governance institutions and laws; Integrated water resource management approach.

UNIT-V: Forest Resources
People’s participation in natural resource management; National forest policy; Institution of joint forest management and the joint protected area management; Social forestry-rationale and benefits.

Course Delivery

- Lectures
- Presentations
- Group Discussions

Assessment

- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks

Course Outcomes:

CO-1: To understand the basic issues, concepts and Valuation methods used in the study of environmental economics.
CO-2: To be able to appreciate the various theoretical mechanisms for solution to environmental problems at local and as well as global level.
CO-3: To understand the issues in the management of different types of resources and implications for sustainability of development.
CO-4: To have a broader understating of Environmental issues and policy framework in India.
CO-5: To be able to understand the management and regulation of forest resources in India.

Reading List:

Semester – IV

Course Title: Theory of Economic Growth

Course Code: MAE-441

Course Objectives: After Having Acquainted With Various Aspects Of Development Economics Students In This Course Will Have To Deal With Various Growth Models, Problems Of Resource Allocation..

Contents

Unit I: Concept and Importance of Economic Growth - Sources of Economic Growth. Styled facts of Economics growth with special references to Indian data …..

Unit II: Early Growth Models

Classical Theory Of Economic Growth, Harrod’s Model Of Growth, Domar Model Of Growth, Relevance Of The Harrod-Dornar Model To Contemporary Developing Economics,

Unit - III: The Neo-Classical Models and the Models of the Cambridge School


Unit - IV: The Two Sector Model

The Extension O Of The Neo-Classical Model Of Two-Sectors- Uzawa’s Two-Sector Model Of Growth, Money And Economic Growth Optimum Growth Models introduction And The Ramsey Model, Technical Progress: Different Types Of Technical Progress, Learning By Long Arrow’s Model.

Unit - V: Endogenous Growth Models and Growth Accounting


Course Delivery:
• Presentation
• Lectures
• Group Discussion

Assessment:
• Presentation/Assignment: 14 marks
• Mid Term Test 16 marks
• Attendance: 10 marks
• Exam (Internal) 40 marks
• Exam (External) 60 marks

Course Outcomes:

CO1 Introduction to Economic Growth  Addressing the subject matter of developmental economics. Portrays the magnitude of development gap between developed and Underdeveloped Countries. Addressing the stylized facts of economic growth with special reference to India.

CO2 Early Growth Models  Introduction of various theories of economic growth. Classical (Adam Smith, Malthus, Ricardo, and Harrod-Dommer and their application to developing countries like India.

CO3 Neoclassical Models and Models of Cambridge School. To Understand the applicability and relevance of 3rd generation (Neoclassical) Models Growth models in Indian economy.

CO4 Two Sector model  To Analyze the difference in ideas of growth for formation and application of growth models in Indian economy, technical progress.

CO5 Endogenous Growth models and Growth Accounting  To Understand methods and procedures connected to growth accounting.

References:

2. Branson, W, Macroeconomic Theory And Policy, Harper And Row
3. Chiang, A.C. Element Of Dynamic Optimization, Mcgraw Hill
7. Chiang, A.C. Fundamental Methods In Mathematical Economics, Mcgraw Hill.
Course Title: International Political Economy

Course Code: MAE-442

Course Objectives:
This paper deals with theoretical and practical aspects of interaction between International Politics and Economics. It provides insights into significant issues that need critical consideration in the era of globalisation. The basic objective of this course is to enable the students to graduate from the basics of the discipline to a higher level of critical analysis of the issues that determine global economic frame of reference.

Contents:

Unit-I: International Political Economy

Unit II: The International Trade System
The International Trade System: Meaning; the Creation of the Post-war Trade System; Evolution of the Multilaterals Trade System; The Problem of Trade Cooperation; The Politics of Trade Liberalization; Multilateral Institutions an Trade Cooperation; Protection: Protection and its Consequence the structure of Protection in the Advanced Industrialized Countries; The Economic Consequences of Protection.

Unit -III: The Theory of Regional Blocks
Forms of Economic Cooperation; Static and Dynamic effects of a Custom Union: Production effect; Consumption Effects. European Union (EU) and North American Free Trade Agreement (NAFTA). Economic Progress of SAARC, SAFTA, etc. for Asian Economic Cooperation; Problems and Prospects of forming customs union in the Asian Region: Globalization: meaning; essential conditions for Globalization; implications and impact of Globalization.
**Unit-IV: International Trade and Financial Institutions**

The international Monetary System: The rise and fall of Gold Standard and Bretton Wood System (the interwar periods); Present International Monetary System 1M17: Objectives; functions; Conditionality clause of the IMF; The Collapse of Bretton Wood System; World Bank: and its contribution - limitations. GATT and WTO: GATT and Trade Liberalization: The Doha Declaration; WTO and Developing Countries with Special reference to India; Trade Related Investment Measures (TRIMs), Trade related aspects of Intellectual property (TRIPs) and General Agreement of Trade in Services (GATS).

**Unit- V: Current Development and Problems in the International Economy**

Asian Crisis and the lessons for the developing countries like India; Impact of Trade Reforms Since 1991 on Balance of Payments, Multinational Corporations: Definitions, benefits; domestic politics and MNCs; The Host Country Dilema; Regulating MNCs activity in Developing Countries; international Regulation of MNCs. International Devt: Debt-Growth link; Magnitude of Debt Problem; Causes of Debt problem; Remedial and preventive measures; Reasons for sharp rise in India’s External Debt.

**Course Delivery**

- Lectures
- Presentations
- Group Discussions

**Assessment**

- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks

**Course Outcomes:**

**CO-1:** To understand the basic theoretical framework and various issues in the focus of International political economy.

**CO-2:** To understand the evolution of international trade system and appreciate the role of Multilateral institutions in Economic coordination among countries.

**CO-3:** To understand the basics concepts relating to regional trade cooperation and evaluate the progress of some prominent regional trading arrangements.

**CO-4:** To understand the evolution and functioning of international trade and financial institutions.

**CO-5:** To understand the dynamics between international institutions, MNCs and third-world countries with reference to India.
References:

Course Title: Indian Economy

Course Code: MAE-443

Course Objective: The knowledge of economic theory bears fruits only when it is applied to address economic issues facing a nation. Using theoretical wisdom to address practical economic issues effectively is possible only if the economist is fully aware about the nature of the economy, the complexity of economic issues, and the outcomes of the policy interventions. The course aims to familiarize students with features of Indian economy, both at the aggregate level and the sectoral level. It is intended to provide students the knowledge regarding trends in various parameters of growth and development over the last few decades. Sectoral performance and the effect of economic reforms carried out over the years on various fronts are studied, in detail, to enhance students’ understanding regarding the dynamics of the economy.

Contents:

Unit-I: An Overview of Indian Economy
Understanding the Indian Economy; The Colonial Period; Post-Independence Economy; Planning for the Economy – Objectives, Strategy and Achievements, Relevance of Planning in the Context Globalization, Five Year Plans and different Sectors of the Economy– Twelfth Five Year Plan (2012-2017), Growth of GDP and Per Capita Income, Regional Variations, Performance of different Sectors; Sectoral Contribution to GDP

Unit-III: The Agricultural Sector
Land Reform, Agricultural Growth and Productivity, Green Revolution and After; issues relating to public and private capital formation in agriculture, Price; Subsidy and Taxation Policies, Crop and Livestock Insurance, Food security and PDS, Agricultural Labour and Rural Unemployment, Rural Employment Schemes, Evaluation of Rural Credit Policies, Financial Sector Reforms and Rural Credit, Microfinance- Self-Help Groups and NGO’s, Agricultural Marketing, WTO and Indian agriculture.
Unit-IV: The Industrial Sector
Industrial Growth in India: Trends and Prospects, Public Sector Enterprises and Their Performance, Industrial Sickness, Privatisation and Disinvestments Debate; Growth and Pattern of Industrialization; Small-Scale Industries: Definition, Performance and Policy, Productivity in Industrial Sector; Exit Policy - Issues in Labour Market Reforms; Approaches for Employment Generation; Industry and WTO.

Unit-III: Economic Reforms
Rationale of Internal and External Reforms; Key Economic Reforms introduced in India and their impact; Financial Sector Reforms– Banking Sector Reforms and Narasimham Committee, Financial Sector Legislative Reforms Commission (FSLRC); Fiscal policy reforms– Tax reforms since 1991; Fiscal consolidation and FRBM Act; Goods and service Tax (GST)Inclusive growth in India; Financial Inclusion.

Unit V: External Sector and Economic Reforms
Structure of India’s foreign trade– Trends in volume, direction, and composition; Background of economic reforms– trade policy reforms, Recent trade policy Exchange rate policy–exchange rate management in India; Issue of current and capitalaccount convertibility; Role of FDI and MNCs; Globalisation of Indian economy; WTO and its impact. Start-Up India and Make in India Policy.

Course Delivery
- Lectures
- Presentations
- Group Discussions

Assessment
- Written Assignment and Presentation: 14 marks
- Mid Term Test: 16 marks
- Attendance: 10 marks

Course Outcomes:
CO1: After going through this course, the students will be fully aware about the features of Indian economy including planning strategies and its achievements.
CO2: They will gain in-depth knowledge regarding the dynamics of India’s agricultural sector and study various issues facing or linked to agricultural sector besides the policy reforms.

CO3: They will be familiar with the dynamics of industrial performance and will gain understanding of the issues facing industrial sector despite much of policy reforms.

CO4: They will be familiarized with key reforms across different sectors of the economy.

CO5: They will gain in-depth knowledge regarding India’s trade with other countries and study various reforms and initiatives aimed to boost India’s trading capacity.

References
Course Title: Agriculture Economics

Course Title: MAE -445

Course Objectives:
The Objective of this paper is to acquaint students with developments in Agriculture, production and Productivity, models for agricultural development, price and marketing of agricultural products and policy issues that are relevant to Indian agricultural economics. This gives the students understanding about theoretical developments in agricultural economics.

Contents:

Unit-I: Agriculture Economic-Nature and scope

Nature and scope of agriculture economics: Role of agriculture in economics development: Contribution of land, Capital and labour in agricultural development, Different types of farming: Risk and uncertainty in agriculture sources, expectation and variation measure to control farm risk: Supply and demand behaviour in agriculture: Farm mechanisation: Sustainable agricultural development.

Unit –II Agriculture and economic development

Basic models, For agricultural development –Schultz’s transformation of traditional agriculture model , Lewis unlimited supply of labour model, Fei- Ranis model of agricultural growth, Mellor’s model of agricultural development, Boserup’s. Model of agricultural development; Linkage between agriculture and industry –some empirical evidences; complementarily between agriculture and industry

Unit; III Agricultural production and Productivity

Agricultural production –resources use and efficiency ; Production function analysis in agriculture; factor combination and resource substitution ;size of form and law of returns ;factor product ,and factor –factor an products –product -product relationship, cost and profits in agriculture ;Farm budgeting and planning an Regional variations in agriculture production and productivity in India
Unit IV Market structure and agricultural prices

Agricultural marketing function and marketing efficiency – Market structure and imperfection; Marketing channels – marketing costs and margins, reason for higher marketing cost of agricultural products; difference between marketable surplus and marketed surplus, factor effecting marketable surplus and measures to increase marketable surplus – state policy with respect to agricultural marketing, estimation of price spread, price determination in agriculture, managing price change – brand choice criteria competitions, contract farming, mall, mandies and market laid price changes – E marking.

Unit V Role of agriculture and problems of agricultural development in India
Contribution of agriculture in national economy, Trends in agricultural production and productivity, causes of its backwardness, scope an measures for agricultural development, land utilization pattern, optimum land use pattern, cropping pattern determinants of cropping patterns, land under food and non-food crops, future cropping pattern; Agriculture in five year plains; issues and problems in rural industrialization and development of agro-based industries.

Course Delivery
-Lectures
-Presentations
-Group Discussions

Assessment
-Written Assignment and Presentation: 14 marks
-Mid Term Test: 16 marks
-Attendance: 10 marks
-Internal Exam: 40 marks
-External Exam: 60 marks

Course Outcomes:

CO1: Understand the nature and scope of agriculture and their role in economic development.
CO2: They will be familiar with the theoretical models underpinning the role of agricultural sector and its linkage with industry.
CO3: Understand the dynamics of agricultural production and productivity and its underlying factors.
CO4: Analyse the Market structure and agricultural prices in India and their role in agricultural development.
CO5: Understand the role of agricultural sector in economic development and identify various issues holding back agricultural sector in India’s growth trajectory.
References:
4) Dr. SubhashBhaveAgribusiness Management in India –Text & Cases
7) K. Subbarao (1989), *Agricultural Marketing and Credit*, ICSSR.
10) Rao, Hamumantha C.H. *Agricultural growth, Rural poverty and environmental degradation in India*, Oxford University Press, New Delhi