Syllabus

SEMESTER I

Course Type	Course Code	Course Name	L	P	C
MM	MEC55MML501	Microeconomics – I	4		4
MM	MEC55MML502	Macroeconomics - I	4		4
MM	MEC55MML503	Statistical Methods for Economics -I	4		4
RM	MEC55RML501	Research Methodology (Theory)	4		4
ME	MEC55MEL501	Money, Banking & Finance	4		4
	MEC55MEL502	Industrial Economics			

Microeconomics – I

Course code: MEC55MML501 Course name: Microeconomics – I Course category: MM

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge of economics

Course Objective

1. This course introduces students with foundations of economic analysis involved in modern microeconomics.
2. This course includes behavioral aspects of economic decision making.
3. This course will enable the student to develop a sound understanding of the core concepts microeconomic analysis.

Course Outcomes

1. To know the basic principle, theories, laws and assumptions involved in economic analysis.
2. To introduce students with the psychological &behavioral aspects of Economics.
3. To introduce students with the theories of consumer behavior, production & costs.
4. To know the income & expenditure pattern of individual consumers, firms, industries.

Unit No.	Title and Contents	Teaching Hours
I	Introduction to Economics - as a social, normative and positive discipline of study - Economics, market and economy - scarcity, choice, resources allocation & economic problems; Statics& Dynamics in economics; Deductive & Inductive methods of economics; Behavior of individual consumers, firms and government in economic decision making of – The roles, identities and goals of various economic agents; Micro and Macro analysis in economics.	12
II	Demand Analysis; meaning &determinants of demand; Law of demand; basic assumptions; Elasticity of demand; Applications of Elasticity of demand; Cardinal & Ordinal utility approach; Indifference curve; Consumer surplus; Supply Analysis: Law of supply, Elasticity of supply; Price determination - Demand & Supply Equilibrium; partial equilibrium and general equilibrium	12
III	Theory of Production - production function, firms' behavior; short run production decisions and long run production decisions; Isoquants – properties & producer equilibrium; Technical progress & production function; Cobb - Douglas production function and CES production Function.	12
IV	Theory of Costs: Cost concepts; behavior of costs in short run and long run; Traditional theory of cost -Envelop curve; Modern theory of cost – L shaped curve.	8
V	Market System and Competition Meaning, Assumptions, Features, Price and Output Determination under Perfect Competition, Short Run Period and long-run period	6
VI	Imperfect Competition Meaning, Types, Assumptions, Features, Monopoly -sources of power Price discrimination - first, second and third degree, tax incidence; Monopsony & Bilateral Monopoly; Monopolistic competition – Chamberlin's approach; Product differentiation & selling cost; Oligopoly – Collusive & non- Collusive; Price leadership; Dominant firm; Barometric firm; Concepts of cartels; Cournot's model; Stackelberg model, Bertrand Model; Kinked demand curve.	10
		60

Textbook-

1. Ahuja H.L. (2019), Principles of Microeconomic, S. Chand & Co. New Delhi.

Suggested Readings:

1. Dwivedi D.N. (2019), Microeconomics – Theory & Applications, Vikas Publishing House Pvt. Ltd., Noida

(UP).
2. Robert Pindyck &DanialRubinfeld (2020), Microeconomics, Pearson India Education Services Pvt. Ltd., Noida (UP)
3. Koutsoyiannis K. (2013), Modern Microeconomics (International Edition), Macmillan Press Ltd., London (UK).
4. Karl E. Case & Ray C. Fair (2016), Principles of Economics, Pearson India Education Services Pvt. Ltd.

Course code: MEC55MML502 Course name: Macroeconomics – I Course category: MM

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge of economics

Course Objectives

1. The objective of the course is to familiarize the students with the theories, concepts and issues in macroeconomics.
2. This course covers National income accounting, classical & Keynesian theories of aggregate income, aggregate consumption, employment, investment, inflation etc.
3. This course also covers the theories of Business cycles and rational expectations in Macroeconomics.

Course Outcomes

1. To learn the concepts of national income, measurement of national income and circular flow in the economy.
2. To know the causes of fluctuations/changes in aggregate output, aggregate consumption, investment, inflation and employment levels in an economy.
3. To know how effective government policies in stabilizing are the economy and generating steady growth in the economy.

Unit No.	Title and Contents	Teaching Hours
I	**Introduction to Macroeconomics** Meaning, Scope, Nature, Importance, limitations and macroeconomic issues and concerns, Circular flow of national income, Role of Government	8
II	**National Income Accounting** Meaning, Various Concepts, Importance of National Income; measurement of national income and Its barriers; methodology of estimation of national income in India, GDP deflator, consumer and producer price index	12
	Classical theories of employment and output Full employment, Says Law, classical theory of employment and output, Wage price theory, market equilibrium	
III	**Keynesian Theory of Employment and Output** Keynes income expenditure approach, theory of employment and output, principle of effective demand, aggregate demand and supply, determination of equilibrium of employment	8
IV	**Consumption function** average and marginal propensity to consume, consumption hypothesis; permanent income hypothesis, relative income hypothesis, life cycle hypothesis	8
V	**Investment Function and Capital Accumulation** Inducement to invest – Marginal efficiency of investment and Marginal efficiency of capital criterion; the accelerator and investment behavior; Jorgenson's Model.	12
VI	**Money Demand Theories** Demand for Money: Classical Approach to Demand for Money – Fisher and Cambridge; Keynesian approach - Liquidity Preference Theory: Transaction, Precautionary and Speculative Demand for Money; Milton Friedman's Approach – Wealth theory; Portfolio balance Approach – Baumol and Tobin.	12
		60

Textbook:

1. Froyen R.T. (2019), Macroeconomics - Theories and Policies, Pearson India Education Services Pvt. Ltd., New Delhi.

Suggested Readings:
1. Branson, W. (2013). Macroeconomics: Theory and policy, 3rd ed, East West Press.
2. Mankiw, N. G. (7th Ed.2013), Macroeconomics, Worth Publishers, New York.
3. Blanchard, O. (2018). Macroeconomics, 7th ed. Pearson India Education Services Pvt. Ltd., New Delhi.

Course code: MEC55MML503 **Course name: Statistical Methods for Economics Course category:** MM
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0
Pre-requisites: Basic knowledge of statistics
1. This course introduces students' various basis statistical concepts.
2. This Course includes measures of central tendency, correlation & regression between variables, sampling theory and sampling techniques and probability distribution and estimation.
Course Outcome
1. To explore the basic statistical concepts.
2. Student will understand the meaning of measures of central tendency, correlation & regression between variables.
3. Student will be able to various concepts of sampling theory and sampling techniques and probability distribution and estimation.

Unit No.	Title and Contents	Teaching Hours
I	**Introduction to Statistics** Meaning, Scope, Importance, Limitation, Data, Data Types, Data Arrangement , Data Presentation, Data Interpretation	6
II	**Measures of Central Tendency** Introduction of central tendency, arithmetic mean, weighted arithmetic mean,, median,, mode; merits and demerits of arithmetic mean, median and mode, geometric mean and harmonic mean	12
III	**Measures of Dispersion** Introduction of dispersion, range, quartile deviation, mean deviation, standard deviation ; merits and demerits of range, mean deviation, standard deviation	10
IV	**Correlation** Introduction, types of correlation, scatter diagram, karl pearson's coefficient of correlation, properties and interpretation of correlation coefficient, probable error and coefficient determination	10
V	**Regression** Introduction, regression line and uses, concept of error in regression, principle of least square, fitting of linear regression	10
VI	**Sampling Methods** Sampling distributions: Simple random sampling: with and without replacement, stratified random sampling, probability and non-probability sampling, statistic and sample moments, sampling distributions; determinants of sample size, Data Collection	12
		60

Textbook:

1. Gupta S. P. (2017), Elementary Statistical Methods, Sultan Chand & Sons, New Delhi.

Suggested Readings:
1. Devore, J. (2012). Probability and statistics for engineers, 8th ed. Cengage Learning.
2. Pillai R.S.N. & Bagavathi (2018), Statistics – Theory & Practice, S. Chand & Co. Ltd. New Delhi.
3. Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics Prentice Hall (2011)
4. Miller, I., Miller, M. (2017). J. Freund's mathematical statistics with applications, 8th ed. Pearson.

Course code: MEC55RML501 **Course name: Research Methodology Course category:** RM

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge of research

Course Objective

1. The course begins with the formulation of a research problem and covers the issues concerning the generation of primary sample data.
2. This course will cover the designing of a questionnaire, the methods of design of a sample and its size, the modes of data collection from direct interview to online surveys, the appreciation of possible sources of errors, and the cleaning of data.

Course Outcomes

1. The students will acquire skills to undertake data-based research.
2. The students will develop competency in executing sample surveys for collection of primary data.
3. The students will know how to collect data from variety of secondary sources.
4. The students will explore the skills of Data Analysis and research conclusions.

Unit No.	Title and Contents	Teaching Hours
I	**Introduction** Meaning of Research; Research in social sciences; Objectives of Research; Process of Research; Types and Significance of Research; Social Research and Scientific Research. **Concepts & Postulates in Research:** Theory, facts and concepts; Descriptive, analytical, applied, fundamental, quantitative, qualitative, conceptual, empirical, case study and survey method.	6
II	**Research Problem and Objectives** Identification of Research Problem; Formulation of Research Problem; Criteria of Research Problem **Hypothesis** Hypothesis, Meaning and Significance Hypothesis in Research	12
III	**Research Design:** Meaning, Characteristics, Types & Significance of Research Design	10
IV	**Data Collection – Tools and Methods** Qualitative and Quantitative Data, Sources of Data – Primary & Secondary, Data Collection – Sources and Techniques of Primary Data, Time Series Data – Empirical Research **Data Collection:** Survey Methods Sampling: Types of Sampling; determining an appropriate size of sample, Case Study Method and Focused Group Discussion Method, Observations and Recording. **Errors in surveys:** Misunderstanding of questions and answers; problem of non- response.	10
V	**Data Analysis and Interpretation** Processing of data: Cleaning, Organisation, Classification, Codification, Tabulation, Graphical Presentation, Interpretation, Conclusions/Findings, Report Writing; Ethics and scientific integrity: Standards of conduct, privacy in data	10

VI	Research Reporting Research Papers, Proposals, dissertation, Ethics in research reporting	12
		60

Textbook:

1. Research Methodology by C.R. Kothari, New Age International Publishers (2004)

Suggested Readings:

1. Ram Ahuja (2001), Research Methods, Rawat Publications
2. W. Lawrence Neuman (2015), Social Research Methods – Qualitative and Quantitative, (Pearson India Education Services Pvt. Ltd., New Delhi.
3. Bridget Somekh& Cathy Lewin (2012), Theory and Methods in Social Research, Sage Publications India Pvt. Ltd., New Dlhi.
4. P. Saravanavel (2006) - Research Methodology, Kitab Mahal, Allahabad.
5. Kumar, R. (2014). Research methodology: A step by step guide for beginners, 4th ed. Sage Publications.

Course code: MEC55MEL501 **Course name: Money, Banking and Finance Course category:** ME

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge of research

Course Objectives

1. This course introduces students to the knowledge of Money, its functions, demand and supply.
2. This course also covers the role and functions of central banks in monetary policy and credit control in the economy.
3. The main thrust of this course is to introduce students to monetary policy and its actual impact.

Curse Outcomes

1. To explore the functions, demand and supply of money in the economy.
2. To know the functions of the central bank and credit creation by commercial banks.
3. To discuss the monetary policy of India and to know its impact on the economy.

Unit No.	Title and Contents	Teaching Hours
I	**Introduction to Financial System in India.** Banking and Non Banking Financial Institutions, Money and Capital Market and its Regulation, Financial Reforms in India	8
II	**Money** Meaning, Definitions, Evolution of money, Forms & Functions of Money	6
III	**Theories of Money** Demand for Money and Supply of Money; Components of Money Supply	8
IV	**Banking System in India** **Commercial Banking** Meaning and types of commercial banking, Roles, Functions, Credit creation by commercial banks, Digital Banking and its impact, **Central Bank** Roles, Functions, Instruments of Credit control, Foreign exchange regulation, Issues in modern finance, Monetary Policy and its applications – Deficits, Inflation; Inflationary Gap	8
		60

Textbook:

1. L.M.Bhole and Mahakud(2017), Financial Intuitions and Market, McGraw Hill Education Ltd.

Suggested Readings:

1. C. Stephen & Kermit (2017), Money, Banking and Financial Markets, McGraw-Hill Education, Noida
2. Sinha N. K. (2009), Money Banking And Finance, Bsc Publisher Co.
3. Jain T.R. (2020-21), Money and Banking, VK Global Publications Pvt Ltd. New Delhi.
4. Jhingan M.L. (2013), Money, Banking, International Trade and Public Finance, Vrinda Publications P Ltd.

Course code: MEC55MEL502 **Course name: Industrial Economics Course category:** ME
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0
Pre-requisites: Basic knowledge of research
Course Outline
1. This course introduces students with foundations of economic analysis involved in modern Industrial Economics.
2. This course includes behavioral aspects of Industrial decision making.
3. This course will enable the student to develop a sound understanding of the core concepts Business decision making.
Course Outcomes
1. To know the basic principle, theories, laws and assumptions involved in industrial economic analysis.
2. To introduce students with the psychological &behavioral aspects of Industry.
3. To introduce students with the theories of consumer behavior, production & costs.
4. To know the income & expenditure pattern of Industries.

Unit No.	Title and Contents	Teaching Hours
I	**Theory of the Firm** Undifferentiated Products - Cournot, Stackelberg, Dominant firm model, Bertrand-Heterogeneous products - Chamberlin's small and large number case-Kinked demand curve theory - Bain's limit pricing - Sales and growth maximization hypothesis - Managerial theories of the firm - Game theoretical models.	10
II	**Investment Decisions** Conventional and modern methods - Risk and uncertainty - Sensitivity analysis - Financial statements and ratio analysis - Inflation accounting - Project appraisal methods - Industrial finance-Sources of finance - Capital structure - Incentive, signaling and control arguments - Separation of ownership and control.	10
III	**Vertically Related Markets and Competition Policy** Successive and mutually related market power - Monopoly, variable proportions and price discrimination - Monopsony and backward integration - Uncertainty - Diversification, rationing and cost economics and asset specificity - Internal hierarchiesHierarchies as information systems - Incentive structures and internal labour markets - Supervision in hierarchies - Competition policy: Need and requirements - Mergers and acquisitions - Coordination with other policies.	10
IV	**Product market Differentiation and Imperfect Information** Lancastrian and Hotelling approaches - representative consumer approach and Chamberlin's model of diversity of tastes - The address approach -Competition in address-Free entry-Pure profit and non-uniqueness in free entry equilibrium product diversity and multi address firms - Bargains and ripoffs - Theory of sales - Quality and reputations-Product variety Imperfect discrimination and price dispersions -Advertising - Dorfman Steiner condition - Lemons and information asymmetries.	15
V	**Indian Industry** Industrial growth in India: Trends and prospects - Public enterprises; efficiency, productivity and performance constrains - Small scale industries : definition, role, policy issues and performance - Capacity utilization - Industrial sickness and Exit policy - Concept of competitiveness - Nominal protection coefficients (NPC) and effective rate of protection (ERP) - Total factor productivity - Technology transfer - Pricing policies: Administered pricing and LRMC based tariffs - Industrial location policy in India; regional imbalance - Globalization and competition - Privatization.	15
		60

Textbook-

1. Ahluwalia, I. J. (1985), Industrial Growth in India - Stagnation since Mid-sixties, Oxford University Press, New Delhi.

2. Ahluwalia, I. J. (1991), Productivity and Growth in Indian Manufacturing, Oxford University Press, New Delhi.

3. Desai, A. V. (1994), "Factors Underlying the Slow Growth of Indian Industry", in Indian Growth and Stagnation -

The Debate in India Ex. Deepak Nayyar, Oxford University Press.

Semester II

Course Type	Course Code	Course Name	L	P	C
MM	MEC55MML504	Microeconomics – II	4		4
MM	MEC55MML505	Macroeconomics - II	4		4
MM	MEC55MML506	Statistical Methods for Economics - II	4		4
ME	MEC55MEL503	Public Finance	4		4
	MEC55MEL504	History of Economics Thought			

Course code: MEC55MML504 **Course name: Microeconomics – II Course category:** MM

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge of Microeconomics

Course Outline

1. This course introduces students with Market Structure, Price determination under perfect & imperfect competition in the Market.
2. This course includes theories of income distribution to the factors of production in input market.
3. This course also covers theories of General Equilibrium, Market Failure & Welfare Economics.
4. This course will enable the student to understand the concepts of Game theory in microeconomic analysis.

Course Outcomes

1. To explore the theories of price determination under perfect & imperfect market structure.
2. To know theories of income distribution to input factors in production process.
3. To introduce students with the concepts of General Equilibrium.
4. To introduce the student with the theories of Welfare Economics and Market failures.

Unit No.	Title and Contents	Teaching Hours
I	**Factor Pricing Theories** Labour Supply, Wage Determination Theories, Rent Determination Theories, Profit Theories, Interest Theories	9
II	**Alternative Theories of Firm:** Williamson's model of Managerial discretion; Hall & Hitch report & Full cost pricing principle; Limit pricing principle; Boumol's Sales maximization Hypothesis.	9
III	**Theories of Distribution** Marginal productivity theory; Euler's Theorem – product exhaustion theorem; Technical Progress and factor share; Macro theories of distribution – Ricardo, Marx, Kalecki&Kaldor.	9
IV	**Welfare Economics - I** Efficiency and fairness of Market wage; Arrow-Debreu economy; welfare theorems; existence of Walrasian equilibrium; fixed-point theorem, core and core convergence; general equilibrium with time and uncertainty; Jensen's Inequality; social welfare function; transfer efficiency;	9
V	**Welfare Economics - II** Efficiency Criteria: Pareto-Optimality; Edge worth box, Pareto improvement and efficiency; Walrasian equilibrium, money in general equilibrium, Wealth Maximization; Kaldor-Hicks-Samuelson criterion; Rawl's theory of social justice.	9
VI	**Asymmetric Information** Market Failure, Risk and uncertainty; Adverse Selection and Moral Hazards;Recent developments in demand theory - Hicksian revised theory; Neuman Morgenstern method; Friedman – Savage hypothesis; Risk & Uncertainty	9
VII	**Game Theory** Two person zero-sum game; Game theory – Cooperative & Non-cooperative models; Nash equilibrium	6
		60

Textbook:

1. Robert Pindyck &Danial Rubinfeld (2020), Microeconomics, Pearson India Education Services Pvt. Ltd., Noida (UP)
2. Ahuja H.L. (2016), Advanced Microeconomic Analysis, S. Chand & Co. New Delhi.
Suggested Readings:
3. Dwivedi D.N. (2019), Microeconomics – Theory & Applications, Vikas Publishing House Pvt. Ltd.,
4. Koutsoyiannis K. (2013), Modern Microeconomics (International Edition), Macmillan Press Ltd., London (UK).

Course code: MEC55MML505 **Course name: Macroeconomics – II Course category:** MM

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge of Macroeconomics

Course Objectives

1. The objective of the course is to familiarize the students with the theories, concepts and issues in macroeconomics.
2. This course covers National income accounting, classical & Keynesian theories of aggregate income, aggregate consumption, employment, investment, inflation etc.
3. This course also covers the theories of Business cycles and rational expectations in Macroeconomics.

Course Outcomes

1. To learn the concepts of national income, measurement of national income and circular flow in the economy.
2. To know the causes of fluctuations/changes in aggregate output, aggregate consumption, investment, inflation and employment levels in an economy.
3. To know how effective government policies in stabilizing are the economy and generating steady growth in the economy.

Unit No.	Title and Contents	Teaching Hours
I	**Theories of Money and Interest** Classical quantity theory of money, the Cambridge version of quantity theory of money, Fishers quantity theory of money, Keynesian theory of demand for money, theory of interest and money market equilibrium	5
II	**IS-LM Model** Two sector model- Interdependence of product and money market, Three sector model- IS curve with government sector, Monetary changes and money market equilibrium, the product and money market equilibrium, IS-LM model with foreign sector	15
III	**Theory of Inflation** Classical, Keynesian and Monetarist approaches; Structuralist theory of inflation; Philips curve analysis – Short run and long run Philips curve; Natural Rate of Unemployment hypothesis; Tobin's modified Philips curve; Adaptive expectations and rational expectations; Policies to control inflation	10
IV	**Business Cycles** Meaning, Phases, Theories of Schumpeter, Kaldor, Samuelson, Hicks and Goodwin's model; Control of business cycles; Rational Expectation Hypothesis	10
V	**Open Economy and Balance of Payment** Introduction, Foreign exchange market, Determination of exchange rate, Floating and fixed exchange rates, Balance of payment- Meaning, BoP Accounts, India's BoP	10
VI	**Macroeconomic Policies : Monetary and Fiscal Policy** Meaning and scope, Objectives, Monetary Policy, Instruments, Limitation, Fiscal Policy, Instruments, Types, Targets, Crowding out and Crowding In, Limitations	10
		60

Textbook:

1. Blanchard, O. (2018). Macroeconomics, 7th ed. Pearson India Education Services Pvt. Ltd.,
2. Dornbusch, R. & Fischer S. (2018). Macroeconomics, 12th ed. McGraw-Hill.

Suggested Readings:

1. Branson, W. (2013). Macroeconomics: Theory and policy, 3rd ed., East West Press.
2. Froyen R.T. (2019), Macroeconomics - Theories and Policies, Pearson India Education Services Pvt. Ltd., New Delhi.

Course code: MEC55MML506 **Course name: Statistical Methods for Economics – II Course category:** MM

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge of Statistics

Course Objective

1. This course introduces students various basis statistical concepts.
2. This Course includes measures of central tendency, correlation & regression between variables, sampling theory and sampling techniques and probability distribution and estimation.

Course Outcome

1. To explore the basic statistical concepts.
2. Student will understand the meaning of measures of central tendency, correlation & regression between variables.
3. Student will be able to various concepts of sampling theory and sampling techniques and probability distribution and estimation.

Unit No.	Title and Contents	Teaching Hours
I	**Probability Theory** Concepts; conditional probability and Bayes' theorem; Random variables –discrete and continuous, Density and distribution functions, law of large numbers and Central Limit theorem. Probability Distributions-Discrete versus continuous distribution, uniform, binomial, negative binomial, Poisson, exponential, normal.	15
II	**Estimation and Hypothesis Testing -I** Concepts of population of estimator and its sampling distribution; properties of good estimator;	15
III	**Estimation and Hypothesis Testing -II** Formulation of statistical hypothesis – Null & Alternative hypothesis; type-I and type-II error; power of a test, Tests of goodness of fit; Hypothesis testing - t, Z, Chi-square and F- tests.	15
IV	**Time Series Analysis and Index Numbers** Time Series- Types of Trends, Method of Analysis, Cross Sectional and Panel Data; Index Number- Definition, Importance, Types, Uses, Advantages, Limitations	15
		60

Textbook:

1. Gupta S. P. (2017), Elementary Statistical Methods, Sultan Chand & Sons, New Delhi.
2. Monga G.S. (), Mathematics and Statistics for Economics, Vikas Publishing House Pvt. Ltd., New Delhi.

Suggested Readings:

1. Devore, J. (2012). Probability and statistics for engineers, 8th ed. Cengage Learning.
2. Gupta S. P. (2017), Elementary Statistical Methods, Sultan Chand & Sons, New Delhi.
3. Pillai R.S.N. & Bagavathi (2018), Statistics – Theory & Practice, S. Chand & Co. Ltd. New Delhi.
4. Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics Prentice Hall (2011)
5. Miller, I., Miller, M. (2017). J. Freund's mathematical statistics with applications, 8th ed. Pearson.

Course code: MEC55MEL503 **Course name: Public Finance Course category:** ME

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge of Public finance

Course Objective

1. The objective of the course is to provide the students with a thorough knowledge and understanding of the economic functions of government in an economy.
2. This course also introduces students with the role of government in the case of markets failures and negative externalities generated by market system.

Course Outcome

1. To know the economic functions of government in an economy regarding management of income and expenditure and also in implementation of yearly budgets.
2. To explore the role of government in the case of markets failures and negative externalities generated by market system.

Unit No.	Title and Contents	Teaching Hours
I	**Introduction to Public Finance** Role of Government; Public Goods; Theory of Public Good and Public Choice; Public goods and externalities, merit goods, Samuelson theory, free rider problem; Lindahl solution, Coasian theory, theory of clubs, median voter theorem;, Regulation of Market – Collusion and Consumers' Welfare; Consumer Protection Act, 1986	12
II	**Public Revenue** Theory of Taxation and Tax Reforms; taxation and savings, risk-taking and wealth; general equilibrium (Herberger); models of tax incidence; theory of optimal taxation, recent developments in theory of taxation, Taxation in a Federal system: assignment issues, vertical and horizontal imbalances and externalities; evolution of tax structures; Direct & Indirect Taxes, Progressive and non-Progressive Taxation, Incidence and Effects of Taxation; Tax structure in India; tax evasion and avoidance; designing of modern tax system; reforms in direct taxes; reform in indirect taxes: the GST; taxation of property; Laffer curve analysis	12
III	**Public Expenditure** Determining optimal size of government, financing of public expenditure: debt versus tax financing, impact of public expenditure on the level and composition of output, fiscal federalism: central and sub-national expenditures, Impact of government expenditure on output and employment, designing optimal government expenditure policy: issues of size and composition, designing subsidy policy: health and education expenditure policy in India; Fiscal Deficit and its impact; Development Schemes and their impact on development.	12
IV	**Public Debt and Budget** Public Debt and its management, Public Budget and Budget Multiplier	8
V	**Fiscal Policy** Fiscal Policy and its implications; Centre-State Financial Relations Economic Federalism; Revenue Distribution; Role of Finance Commission; FRBM	8
VI	**Economic Survey** Home Assignment on Economic Surveys and Annual Budgets of India	8
		60

Textbook:

1. Bhatia H.L. (2018), Public Finance, Vikas Publishing House, New Delhi.
2. Musgrave R.A. & Musgrave P.B.(2017), Public Finance – Theory & Practice, McGraw Hill Education (India) Pvt. Ltd., Chennai.

Suggested Readings:

1. Singh S.K., Public Finance – Theory & Practice, S. Chand & Co. Pvt. Ltd., New Delhi.
2. Hindriks, J., Myles, G. (2013). Intermediate public economics, 2nd ed. MIT Press.
3. Rao, M., Kumar, S. (2017). Envisioning tax policy for accelerated development in India. Working Paper No. 190, National Institute of Public Finance and Policy.
4. Govinda Rao M. and T. K. Sen, Fiscal Federalism in India: Theory and Practice, 1996.

Course code: MEC55MEL504 **Course name: History of Economic Thoughts Course category:** ME

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Basic knowledge Economics

Course Objective

1. The objective of the course is to provide the students with a thorough knowledge and understanding of economic history and thoughts.
2. This course also introduces students to the Indian and foreign economic thinkers.

Course Outcome

1. To know the economic history and thoughts and theories.
2. To explore the role of previous theories and their importance in the current economic situation.

Unit No.	Title and Contents	Teaching Hours
1	**Introduction to Economic Thought** Objectives, Meaning of Economic Thought, Development, Nature and Approaches, Significance of the History of Economic Thought	12
2	**Classical Economics** Introduction, Objectives, Adam Smith, T.R. Malthus, David Ricardo, J.S. Mill and his Theory on Utilitarianism and J.B. Say	12
3	**Indian Economic Thoughts - I** Introduction, Objectives, Thiruvalluvar, Gopal Krishna Gokale	12
4	**Indian Economic Thoughts - II** Dadabhai Naoroji and Mahadev Govind Ranade	12
5	**Indian Economic Thoughts - III** Jawaharlal Nehru, Mahatma Gandhi, E.V. Ramasamy and Amartya Sen	12
		60

Suggested Readings:

1) Rr Paul., (2021) " History of Economic Thought"

2) B. N. Ghosh, Rama Ghosh,(2019) Concise History of Economic Thought, Himalaya Publishing House

3) Jhingan, M. Girija, Sasikala (2020) History Of Economic Thought

SEMESTER III

Course Category	Course Code	Course Title	Nature of Course	No. of Credits	Teaching (Contact hrs/ week)	
					L	**P**
MM	MEC55MML601	Development Economics	Theory	4	4	
MM	MEC55MML602	Mathematical Methods for Economics	Theory	4	4	
MM	MEC55MML603	Indian Economic Policies– I	Theory	4	4	
ME	MEC55MEL601	Population Studies	Theory	4	4	
	MEC55MEL602	Environmental Economics	Theory			
OJT	MEC55RPP601	Project Data Analysis (SPSS, STATA/R)	Practical	4		8

Course code: MEC55MML601 **Course name: Development Economics** **Course category:** MM
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Intermediate knowledge **of** Development Economics
Course Objectives:
1. To learn about linking political institutions to growth and inequality
2. To learn about the role of the state in economic development
3. To learn about development theories and models
4. To learn about poverty, unemployment, inequality and inflation
5. To understand functioning of political institutions and the state
Course Outcome
1. Students will learn about linking political institutions to growth and inequality
2. Students will learn about the role of the state in economic development
3. Students will learn about development theories and models
4. Students will learn about poverty, unemployment, inequality and inflation
5. Students will understand functioning of political institutions and the state

Units	Contents	Teaching Hours
Unit 1	**Concepts and measures of Development:** Alternative measures of development, documenting the international variations in these measures, comparing development trajectories across nations and within them	10
Unit 2	**Growth Models and Empirics**: The Harrod-Domar model, the Solow model and its variants, endogenous growth models, and evidence on the determinants of growth	10
Unit 3	**Poverty and Unemployment :** Definitions, Measures, and Mechanisms Inequality axioms; comparison of commonly used inequality measures; connections between inequality and development; poverty measurement; characteristics of the poor; mechanisms that generate poverty traps, and path dependence of growth processes	10
Unit 4	**Inequality and Inflation** Problem of economic inequality, causes of inequality, estimation of inequality, nature of inequality in India, impact of inequality Understanding inflation, causes of inflation, compounding inflation, parasite money and inflation, impact of inflation on economic growth, effects on inflation in long run	10
Unit 5	**Political Institutions and the Functioning of the State** The determinants of democracy; alternative institutional trajectories and their relationship with economic performance; within-country differences in the functioning of state institutions; state ownership and regulation; government failures and corruption	10

Unit 6	**Globalization and Development – Indian Experience:** Globalization in a historical perspective; the economics and politics of multilateral agreements; trade, production patterns, and world inequality; financial instability in a globalized world	10
		60

References:

1. Banerjee, A., Benabou, R., Mookerjee, D. (eds.) (2006). Understanding poverty. Oxford University Press.
2. Ray, D. (1998). Development economics. Princeton University Press.
3. Rodrik, D. (2011). The globalization paradox: Why global markets, states, and democracy can't coexist. Oxford University Press.
4. Todaro M.P. & Smith S.C. (2016), Economic Development, Pearson India Education Services Pvt. Ltd., New Delhi.
5. Thirlwall A.P. (2014), Economics of Development, Palgrave Macmillan.
6. Lekhi R.K. &Joginder Singh (0 Economics of Development & Planning, Kalyani Publishers, Ludhiana, Punjab.

Course code: MEC55MML602 **Course name:** Math. Methods for Economics **Course category:** MM

Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Intermediate knowledge of Mathematical Methods

Course Objective

1.To create mathematical awareness regarding economic phenomena among students.
2.To provide with a simple and rigorous introduction to various mathematical techniques
3.To explore the skills of economic analysis with mathematical tools.
Course Outcomes:
1.This course will create mathematical awareness regarding economic phenomena among students.
2.This course will provide with a simple and rigorous introduction to various mathematical techniques
3.This course introduces students with the skills of economic analysis with mathematical tools.

Units	Contents	Teaching Hours
Unit 1	**Elementary Algebra:** Introduction, Sets, equations, Limits, functions and continuity, sequence, series	10
Unit 2	**Linear Algebra:** Vectors, matrices, Types of Matrix; Determinants; inverse, simultaneous linear equations, Cramer's rule ; input-output model; Hawkin - Simon condition; Applications of Matrices	10
Unit 3	**Differential Calculus and its applications** -Meaning, Introduction to Functions and Real Analysis; Rules of Differentiation; partial and total Derivatives;Maxima& Minima	10
Unit 4	**Integration and its applications** – Meaning, basic rules of integration, cost function, consumer's surplus, producer's surplus	10
Unit 5	**Theory of consumer behaviour:** Cardinal Utility Approach; Ordinal Utility Approach; Maximization of Utility; Elasticity of Demand	8
Unit 6	**Theory of firm's behaviour:** Production function; Profit maximization; Market equilibrium; Homogeneous production function;Cob-Douglas Production Function; Euler's theorem; C.E.S. Production Function	8
Unit 7	**Static Optimization and Applications**: constrained optimization	4
		60

References:

1. Shaum's Outline Series of Mathematical Handbook (2023)
2. D. Bose (2007), Introduction to Mathematical Economics, Himalaya Publishing House, Mumbai.
3. Chiang, A. C. (2005), Fundamental Methods of Mathematical Economics, McGraw-Hill.
4. Sydsaeter, K., Hammond, P. (2002). Mathematics for economic analysis. Pearson Educational.
5. Monga G.S. (2020), Mathematics and Statistics for Economics, Vikas Publishing House Pvt. Ltd., New Delhi.

Course code: MEC55MML603 **Course name: Indian Economic Policies-I** **Course category:** MM
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0
Pre-requisites: Intermediate knowledge of Indian Economy
Course Objectives

1.	To know about status of Indian economy at independence
2.	To learn objectives and achievements of Planning Commission of India
3.	To learn development policies and trends of Indian economy during 1950 to 1990
4.	To learn about anti-economics in development process and its impact
5.	To learn about policy estimation and employment policy in India
Course Outcome	
1.	Students will learn about status of Indian economy at independence
2.	Students will learn objectives and achievements of Planning Commission of India
3.	Students will learn development policies and trends of Indian economy during 1950 to 1990
4.	Students will learn about anti-economics in development process and its impact
5.	Students will learn about policy estimation and employment policy in India

Units	Contents	Teaching Hours
Unit 1	Planning and Development in India (1950-1990): Industry as Prime Moving Factor; Nationalization and Public Sector Undertakings – corruption & poor performance; Status of Economic Growth – a comparison with American Economy	10
Unit 2	Globalization and Development (1991-2020): Services as Prime Moving Factor; GATT; WTO; Economic Liberalization, Privatization& Contract system in services & employment; Outsourcing; Economic Reforms; Government Interference in Market; Unproductive Economic Growth – Growth of money circulation & inflation.	10
Unit 3	Transformation of Indian Economy: Structural Transformation; Social Transformation – Migration, Displacement, Instability, Insecurity; Consumerism & Possessiveness; Political Transformation – from rural to urban; Issues in Urban Development	10
Unit 4	Anti-economics in Development; Objectives of Economic Policies – Growth or Development – Deviations from the very Objectives; Economic Objectives cannot supersede the National/Social Objectives; Development goals: Stability, Equity, Fulfilment & Prosperity	10
Unit 5	Poverty Estimation – methods, poverty line, Multidimensional poverty, BPL Ratio; Reports of Suresh Tendulkar Committee & C. Rangarajan Committee; Poverty estimation and plan of alleviation by NITI Aayog; Absolute Chronic Poverty - the reality of Poverty in India; Status of Inequality and Methodology of determination of Economic Inequality.	10
Unit 6	Employment Policy in India; Status of Employment Generation; Labour Force Participation Rate; Working Force Participation Ratio; Methods of Estimation of Employment; Types of Employment and Unemployment; Persistency of Unemployment Problem in India; Idle youth – Demographic liability	10
		60

Readings:	
1.	Basu, Kaushik India's Emerging Economy: Performance and Prospects, MIT Press, 2004

2.	Mishra &Puri (2015), Indian Economy, Himalaya Publishing House, Mumbai.
3.	Gaurav Datta&AshwiniMahajan (2015), Datt&Sundaram Indian Economy, S. Chand.
4.	Jalan, B. (ed.), The Indian Economy: Problems and Prospects, Penguin Books, 1992
5.	Krueger A., Economic Policy Reforms and the Indian Economy, Oxford Uni. Press, 2003

Course code: MEC55MEL601 **Course name: Population Studies**	**Course category:** ME
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0	
Pre-requisites: Intermediate knowledge of Population Studies	
Course Objectives	
1.	To understand inter-relationship between economic development and population
2.	To discuss the significance of human capital in economic development

3.	To explore the populations dynamics and Demographic Dividend and other features
4.	To learn about urbanization and sustainability problems in India
5.	To learn about population explosion and human capital development
Course Outcome	
1.	Students will know inter-relationship between economic development and population
2.	Students will know significance of human capital in economic development
3.	Students will know populations dynamics and Demographic Dividend and other features
4.	Students will learn about urbanization and sustainability problems in India
5.	Students will learn about population explosion and human capital development

Units	**Contents**	**Teaching Hours**
Unit 1	Introduction to Population studies: Demography- Its definition, nature and scope, its relation with other disciplines. Population growth in India; Demographic Survey- National Family Health Survey – 1, 2 and 3; Study of fertility Rate; Measurement of population growth rate- Simple Growth Rate and Compound Growth Rate	10
Unit 2	Theories of Population-Malthusian Theory, Optimum theory of population and theory of Demographic Transition	10
Unit 3	Migration - concept and types, factors affecting migration, Theory of Migration, issues in migration Rural - urban migration	10
Unit 4	Urbanization - Concept, trends and patterns of urbanization in India, problems of urbanization in India (poverty, food supply, water, sanitation, housing, slum areas, employment, health, education, transport, environment etc.)	10
Unit 5	Introduction to Human Capital; Population Explosion or Human Capital Accumulation; Broad-demographic features of the Indian population; Age composition; literacy; birth rate; morbidity, mortality; Sex ratio - rural & urban, Juvenile ratio; Demographic Dividend; Life Table; labour force in India; work participation rate;; Nature of labour market and India's Population Policy	10
Unit 6	Population as the root cause of underdevelopment, unemployment & poverty in India; Human Resource as the capital in production; Fundamental objective of Economy; Employment and unemployment: Concepts, measurement, trends and types of unemployment; Employment Structure in India; Role & Significance of MSME, informal sector; dominance of market-driven services	10
		60

References	
1.	Agarwal S.S.(1985) India's Population Problem- Tata McGraw Hill Publication, Bombay
2.	A.K.P.C. Swain (2008)- Population Studies- Kalyani Publications, Ludhiyana
3.	Choubey P.K. (2000) - 'Population Policy of India', - Kanishka Publication, New Delhi.
4.	Shervick, Women's labour force participation in India: Why is it low? – ILO
5.	Economic Survey - 2015-16 TO 2019-20, Government of India

Course code: MEC55MEL602 **Course name: Environmental Economics Course category: ME**
Credits: 4 Teaching scheme: L-4 P-0 T-0 Evaluation scheme: CA–40, MSE–20, ESE–40, TW–0, PR–0

Pre-requisites: Intermediate knowledge of Environmental Economics	
Course Objectives	
1.	To Assess and describe the economic aspects of natural resources and environmental issues.
2.	To know concepts, theories, analysis of environmental and natural resource issues.
3.	To understand nature of environment economics, sustainable Development Goals
4.	To learn about market failures, externalities and impact on economy
5.	To learn about environment problems, management and people's participation
6.	To learn about environmental accounting, environmental values and financial performance
Learning objectives	
1.	Students will be able to assess the economic aspects of natural resources and environment.
2.	Students will know the concepts, theories, and analysis of environmental and natural resource issues.
3.	Students will learn about market failures, externalities and impact on economy
4.	Students will learn about environment problems, management and people's participation
5.	Students will learn about environmental accounting, environmental values and financial performance
6.	Students will understand National Environment Policy, social forestry and Natural Resources Management

Units	Contents	Teaching Hours
Unit 1	Basics of Environmental Economics: Inter-relationship between Economic Development and Environment; Sustainable Development - Concept, Characteristics and Sustainable Development Goals (SDGs)	10
Unit 2	Market failure; Concept of Externalities, Types and Measures to control Negative Environmental Externalities- Pigouvian tax, Property Rights and Coase theorem, Carbon tax; Environmental goods – as public goods/ private goods	10
Unit 3	Environmental Issues : Concept, Types and Methods of Environmental Management; people's participation (PPP); Environmental Degradation- Land forest and natural resource degradation; Problems of Pollution- Air Pollution and Water Pollution; Cost-Benefit Analysis and Compensation Criteria	10
Unit 4	Environmental Valuation & Accounting : Concept of Environmental Values- Use Value, Non-use Value and Option Value; Basics of the valuation of environment- Contingent Valuation Method, Travel Cost Method, Hedonic Price Method; Environmental Accounting - Objectives forms, functions & importance; Financial Performance and Environmental function	10
Unit 5	National Environmental Policy; Social Forestry- Rationale and Benefits, Sustainability of Resources	10
Unit 6	Natural Resource Management : Natural resource accounting; features of System of Economic Accounting of natural resources; Green Accounting; Natural Resources Policies of India.	10
		60

References:

1.	K. Narindar Jetli (2010) Human and Natural Resources in India, New Century Publications.
2.	Bhattacharya Rabindra N. (2018), Environmental Economics – An Indian Perspective, Oxford University Press, New Delhi.
3.	Charles Kolstad (2011), Intermediate Environmental Economics, Oxford University Press, New Delhi.
4.	Peter Berck, Gloria Helfand (2015), The Economics of the Environment, Pearson India Education Services Pvt. Ltd, New Delhi.
5.	Heal, G. (2012). Reflections – defining and measuring sustainability. Review of Environmental Economics and Policy, 6, 147-163.
6.	Dyson, T., R. Cassen and L. Visaria (2004), Twenty First Century India: Population, Economy, Human Development and the Environment, New Delhi: Oxford University Press.

Course code: MEC55RPP601 **Course name: Data Analysis (SPSS/ STATA / R) Course category: RP**
Credits: 4 Teaching scheme: L-0 P - 8 T-0 Evaluation scheme: CA–40, MSE–20, ESE–00, TW–0, PR–40
Pre-requisites: Intermediate knowledge of Software Applications
Course Objective

1.	To enhance the skills of sampling, data collection and data analysis.
2.	To provide hands-on training by using statistical and computing software to better visualize, understand and analyze data.
3.	To know about statistical techniques and software applications of data analysis
4.	To understand the research techniques and methods
Course Outcomes	
1.	Student will learn to use data simulations and publicly available data sources for research
2.	Students will understand the data types, research techniques, methods, origion of data sources
3.	Student will learn to compute data research with the use of data software.
4.	The Students will also learn computer Software like SPSS, R & Python.

Units	Contents	Teaching Hours
Unit 1	Qualitative and Quantitative Data, Data Interpretation, Difference between Data Interpretation and Data Analysis, Data Analysis and Data Analytics. How can the representation and analysis of data help us study real-world problems?	20
Unit 2	Data Collection – Survey, Case Study, Focused Group Survey, Interview, Empirical Data, Available statistical software, steps in data storage, organization and cleaning	20
Unit 3	Simple estimation techniques and tests for statistical inference, data interpretation	20
Unit 4	Learning and Practice of Computer Software – Advanced Excel and SPSS for analyzing Data	60
		120

References	
1.	Levine, D., Stephan, D., Szabat, K. (2017). Statistics for managers using Microsoft Excel, 8th ed. Pearson.
2.	Tattar, P., Ramaiah, S., Manjunath, B. (2018). A course in statistics with R. Wiley.
3.	Data software
4.	Publically available data sources

Semester IV

Course	Course code	Course Name	Type	L	P	C
Core Course	MEC55MML604	Indian Economic Policy- II	Theory	4	-	4
Core Course	MEC55MML605	International Economics	Theory	4	-	4
Core Course	MEC55MML606	Econometrics	Theory	4	-	4
Elective	MEC55MEL603	Financial Economics	Theory	4	-	4
Elective	MEC55MEL604	Entrepreneurship Economics	Theory	4	-	4
RP	MEC55RPD601	Dissertation	Term Work		12	6

Course code: M.A. Economics Course name: Indian Economic Policies-II Course category: MM
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0
Pre-requisites: Primary knowledge of Indian Economic Policy

Course Objectives
1. To know about preparation of economic surveys, its methods and sampling
2. To learn about Union Budgets of India, preparation and presentation of budgets
3. To learn about sectoral growth, significance and performance
4. To analyze Indian agricultural policies and their impact on development
5. To know about RBI Statistics and international trade policies of India
Course Outcome
1. Students will learn about preparation of economic surveys, its methods and sampling
2. Students will learn about Union Budgets of India, preparation and presentation of budgets
3. Students will learn about sectoral growth, significance and performance
4. Students will be able analyze Indian agricultural policies and their impact on development
5. Students will know about RBI Statistics and international trade policies of India

Units	Contents	Teaching Hours	Marks
Unit 1	Analysis of Economic Surveys of India - preparation of economic surveys, collection methods, sampling and data management	12	20
Unit 2	Analysis of Union Budgets of India, preparation and presentation of budgets, allotment of funds, policy decisions and political agenda	12	20
Unit 3	Analysis of policies, performance and significance of Indian Agriculture, public investment in agriculture	12	20
Unit 4	Analysis of Industry and services sector, share of Industry and services in GDP and employment, trends of growth, inflation effects	12	20
Unit 5	Analysis ofreports of RBI, reports of Ministry of Commerce and Industry and agriculture	6	10
Unit 6	Understanding NSSO Reports for data mining, using data for research analysis	6	10

References
1. Economic survey of India, GOI
2. Budget Documents, www.finmin.nic
3. RBI & NSSO Reports.
4. Next wave of growth? IMF working paper, WP/15/119.
5. Banga, R. (2014). Trade facilitation and `hollowing-out' of Indian manufacturing, Economic and Political Weekly, 49(40), 57-63.

Course code: M.A. Economics Course name: International Economics Course category: MM	
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0	
Pre-requisites: Primary knowledge of International Trade and Finance	
Course Objectives	
1.	To introduce students with theory of International Trade along with its background
2.	To deal with the neo classical trade theory as well as alternative explanation of trade
3.	To introduce students with international institutions monitoring flow of capital, goods and services.
Course Outcome	
1.	Students will know about the theory of International Trade along with its background
2.	Students will learn the neo classical trade theory as well as alternative explanation of trade
3.	Students will know about international institutions monitoring capital, goods and services.

Unit	Contents	Teaching Hours
Unit 1	International Trade: History; Basic concepts, structure and analytical tools; gains from trade; Terms of Trade, Trade Multiplier	6
Unit 2	Theories of International Trade - Absolute Advantages; Comparative advantage; opportunity cost; Standard theory of trade; Ricardian trade model, Hecksher-Ohlin model, Stolper-Samuelson, Rybcznski theorem and factor-price equalization theorem, Leontief paradox, empirical validity; International Trade under imperfect competition; Tariff and Non-Tariff barriers; Dumping	15
Unit 3	Foreign Trade: Structure and Direction; Flow of Foreign Capital, Trade Policies; Balance of Payments: Composition, Equilibrium and Disequilibrium and Adjustment Mechanisms; Exchange Rate: Concepts and Theories; Foreign Exchange Market and Arbitrage	8
Unit 4	GATT - WTO – Objectives; Major emerging issues relating to all the agreements; Brief review of all the important agreements and Regional Trade Blocks; Trade Policy Issues	8
Unit 5	Introduction to the Study of International Economic Institutions Understanding the need for International Economic Institutions; The World Bank Group - The IBRD´s aims and its financial structure; The IBRD's resource-drawing policy; The IBRD's loan policy; The IBRD and the environment; The International Development Agency (IDA); The Multilateral Investment Guarantee Agency (MIGA); The World Bank's evolving role in the post-Cold War era; The Multilateral Investment Guarantee Agency	8
Unit 6	International Monetary Fund (IMF); The International Monetary System and the International Monetary Fund (IMF); IMF features: the quota system, the Articles of Agreement, membership conditions; The IMF's policies and its instruments. Special Drawing Rights (SDR), stand-by arrangements, extended facility, enlarged access; The IMF's role in the international economy, OECD); Objectives and institutional make-up of the OECD; OECD Committee of Aid for Development; Multilateral Regional Banks - ADB, BRICS Bank (NDB), SAARC Bank.	15

		60

References	
1.	Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
2.	Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.
3.	Mannur H.G. (2017), International Economics, Vikas Publishing House, Noida (U.P.)
4.	Bhagwati, J. (Ed), "International Trade", Selected Readings, Cambridge University Press, Massachusetts.
5.	Thummuluti Siddahiah, (2011), International Financial Management, Pearson.
6.	Apte, P. G., (2012) International Financial Management, 6th Edition, Tata Mcgraw-hill, New Delhi
7.	Meerhaeghe, (1998), International Economic Institutions, Seventh edition, Springer, US.

Course code: M.A. Economics	**Course name: Econometrics**	**Course category:** MM
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0		

Pre-requisites: Intermediate knowledge of Econometrics
Course Objective
1. To introduce students to the econometric methods used to conduct empirical analysis.
2. To provide the students with the basic quantitative techniques applied research projects.
3. To provide the base for more advanced optional courses in econometrics.
Course Outcome
1. Students will know the econometric methods used to conduct empirical analysis.
2. Students will know the basic quantitative techniques applied research projects.
3. Students will know the base for more advanced optional courses in econometrics

Unit	Contents	Teaching Hours
Unit 1	**Introduction:** Nature and scope of econometrics	5
Unit 2	**Simple linear regression model:** Two variable cases Ordinary least squares estimation of a linear model; properties of estimators; goodness of fit; testing of hypotheses; scaling and units of measurement; confidence intervals; the GaussMarkov theorem; forecasting and prediction	15
Unit 3	**Multiple linear regression model** Extension of the single explanatory variable case to a multivariate setting; introducing non-linearities through functions of explanatory variables, dummy Variables	15
Unit 4	**Violations of classical assumptions:** Consequences, detection, and remedies Multicollinearity; heteroscedasticity; Serial correlation	10
Unit 5	**Specification Analysis:** Omission of a relevant variable; inclusion of irrelevant variable; specification tests	7
Unit 6	**Time Series Analysis and Forecasting** Staitionarity, unit roots, random walk model; forecasting with auto-regressive integrated moving average (ARIMA) modelling, Box-Jenkins Methodology	8
		60

Text Book:	
1.	Gujarati D.N., Dawn C. Porter & Sangeetha Gunasekar (2012), Basic Econometrics, McGraw Hill Education India Pvt. Ltd.

References	
1.	Wooldridge, J. (2014). Introduction to econometrics: A modern approach, 5th ed. Cengage Learning
2.	Koutsoyiannis K. (2017), Theory of Econometrics, Palgrave, New York (Formerly Macmillan Press Ltd.)

3.	Kmenta, J. (2008). Elements of econometrics. Khosla Publishing House.
4.	Maddala, G., Lahiri, K. (2009). Introduction to econometrics, 4th ed. Wiley.
5.	Dougherty, C. (2011). Introduction to econometrics, 4th ed. Oxford University Press.

Course code: M.A. Economics **Course name: Financial Economics** **Course category:** ME
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0
Pre-requisites: Intermediate knowledge of Financial Economics
Course Objective:

1.	To learn the basic principles of Economics at graduate level.
2.	To learn advanced level of finance, banking, accounting and other areas of commerce.
3.	To learn financial transactions and economic principles guiding the financial transactions
4.	To learn the characteristics of financial transactions, financial instruments and financial markets.
5.	To acquire the students with the basic knowledge of financial economics.
Course Outcome	
1.	Students will learn the basic principles of Economics at graduate level.
2.	Students will learn advanced level of finance, banking, accounting and other areas of commerce.
3.	Students will learn financial transactions and economic principles guiding the financial transactions
4.	Students will learn characteristics of financial transactions, financial instruments and financial markets.
5.	Students will acquire the students with the basic knowledge of financial economics

Unit 1	**Introduction** (a) Introduction, history, Scope and basic Concepts of financial economics- finance, financial economics. (b) Characteristics of financial transaction – relevance of time and space, risk and reword relationship. (c) Characteristics financial instruments – main types of financial instruments – definitional introduction (d) Composition of and characteristics of financial markets	10
Unit 2	**Basics of Financial Calculation** (a) Calculation of Interest, nominal, effective, compounding (b) Present Value and discounting (c) Volatility and its measurement (d) Rates of return, present value of returns (e).Annuities, their present and future values	10
Unit 3	**Interest Rates** (a) Meaning and types – system – fixed and flexible, regulated and markets determined, types on the basis of time parameter, (b) Term structure of interest rates, yield curve (c) Risk free rates (d) Basic idea of risk measurement (e) Methods of charging interest rates, by Banks and other financial institutions.	10

Unit 4	**Valuations of Financial Assets**. (a) Principles of market valuations. Arbitrage and the law of one price. (b) Accounting measures of value (c) Valuations of Banks (d) Role of information in market valuation – efficient market hypo thesis, the lemons problem, valuations under asymmetric information adverse selection. (e) Risk and market valuation, basic idea of Capital Asset Pricing model	10
Unit 5	**Derivatives – part -I** (a) Basic idea of derivatives, features of derivatives (b) Pricing theories of futures (c) Types of Derivatives (d) participants of derivative markets	10
Unit 6	**Derivatives – part - II** (a) Forward contracts, features, benefits, limitations, determinants of forward pricing (b) Future contracts, features of future contracts, difference between forward and future contracts, theories of future pricing - Cost of Carry Model, Expectation Model and Capital Asset Pricing Model (c) Options, theories of options, Pricing of options and contingent claims, Binomial method and Black – Scholars model. (d) Valuation of warrants & rights	10
		60

References:

1. V.A. Avadhani; "Financial Economics, Theory and Practice", Himalaya Publications.
2. ZviBodie, Robert C. Merton, david c. cleeton, "Financial Economics" Pearson Education.
3. Bodie, Merton + deeton; "Financial Economics", Pearson Education.
4. V.A. Avadhani, "Financial Economics Theory and Practice"
5. Nishant K. Shukla; "Financial Economics Text & Cases" Cyber Tech.
6. ZviBodie, Robert C. Merton, David c. Cleeton; "Financial Economics", Pearson Education.
7. L.M.Bhole; "Financial Institutions + Mavhels", Tata McGraw Hill.
8. ZviBodie, Robert C. Merton, David c. Cleeton, "Financial Economics by Pearson Education.
9. Robert A. Strong, "Derivatives", Thomson Press.

Course code: M.A. Economics **Course name: Entrepreneurship Economics** **Course category:** ME
Credits: 4 **Teaching scheme:** L-4 P-0 T-0 **Evaluation scheme:** CA–40, MSE–20, ESE–40, TW–0, PR–0
Pre-requisites: Intermediate knowledge of **Entrepreneurship Economics**
Course Objectives
1. To acquaint the students with role and contribution of entrepreneurship in development
2. To introduce students with business entrepreneurship
3. To introduce students with agri-business entrepreneurship

4.	To introduce students with social entrepreneurship
Course Outcome	
1.	Students will know the concepts of entrepreneurship economics and its impact of overall output
2.	Students will know the interdependence of economics and entrepreneurship for economic development.
3.	Students will explore Entrepreneurship skills in business, agricultural and social entrepreneurship.
4.	Students will acquire skills and techniques of field research in economic analysis of entrepreneurship.

Unit	Contents	Teaching Hours
Unit 1	**Introduction** Social Eco-system; Economic Sociology; Social Mind-set; Meaning & nature of Entrepreneurship; significance of Entrepreneurship; Making of an Entrepreneur - Education, Training and Inculcation of Entrepreneurship; Entrepreneurship and Entrepreneurs; Main Traits, Attributes and Characteristics of Entrepreneurship	6
Unit 2	**Types of Entrepreneurship** Industrial Entrepreneurship–MSME; Entrepreneurship in informal sectors; Entrepreneurship in Construction ventures; Entrepreneurship in communication firms; Entrepreneurship in Trading & Services - supply chain; Entrepreneurship in Agriculture & Allied activities; Entrepreneurship in Integrated Rural Development; Digital (Virtual) Entrepreneurship; Social Entrepreneurship; Women Entrepreneurship	7
Unit 3	**Entrepreneurship in Economic Development** Enhancement in total output (production); Increase in jobs; Generation of self-employment units; Increase in Productivity of resources and Sustainable Development; Contributions to Economic Growth; Employment Generation; Poverty Alleviation; Regional Development; Inclusive Development; Equitable Distribution & Decentralization; Sustainable Development	7
Unit 4	**Process of Business Entrepreneurship** Study of Social Eco-system and Business Environment, Innovation & Creativity in Business sector; Innovative idea of a business; Choice of a model; Design and planning of a business –Objectives, Goals, place, time & resources (money &manpower). Starting up new Business Ventures/Enterprises, Selection of Business Model; Balance between Profit and Employment – choice of techniques of production; Forms of Organizations; Registration Process; Organizational Management; Organizational Behaviour - Individual & Social relationships in the business organizations; Management	10

Unit 5	**Agricultural Entrepreneurship** Agricultural Eco-system in India – status, nature and structure of Agricultural economy; Traditional Approach; Agriculture – a natural way of life; Problems of commercialization; Challenges in agriculture; Agricultural crisis/distress; Farmers suicides; Types of Venture - Core Agri-business (growing crops); Organic Farming, Supporting activities, Animal Stock, Dairy Farming, Fisheries, Poultry Farming, Honey-bee; Horticulture, Floriculture, Medicinal Plants, Vegetable Plants, Commercial Tree Plantation; Cooperative Farming; Group Farming	10
Unit 6	**Introduction to Social Entrepreneurship** Meaning, definition and scope of Social Entrepreneurship; Types or Models of Social Entrepreneurship; Creative entrepreneurship, inclusive entrepreneurship, knowledge entrepreneurship. Entrepreneurial characteristics: Inspiration, creativity, direct action, courage and fortitude. Characteristics of entrepreneur: Scope of entrepreneur development; Concepts of Value Creation. Social Entrepreneurship as a Mission; Social Entrepreneurship as a Career; Social Sector – Entrepreneurship NGO/No profit Organizations, Education, Health, Enlightenment, Training, Skill Development, Environmental Initiative, Water conservation, Effective water management, Tourism Services; Hospitality Services. Women Entrepreneurship – From the Society, of the women, by the women, for the Society. Rural Entrepreneurship - Rural Tourism, Agri-tourism, Jungle Safari, Rural Hospitality, Rural Home-stay, Cultural Tourism, Rural Entertainment	10
		60

Assignment: Workshops and Field Assignment in Entrepreneurship

References:

1. Marianna B., Ruby C., Jason Riddle & William Smith, (Edit), The Economics of Entrepreneurship, The Foundation for Economic Education (FEE.org/courses).
2. Robert D. Hisrich, Mathew J. Manimala, M. Peters & D.A. Shepherd, Entrepreneurship, McGraw Hill Education India Pvt. Ltd. (9th Ed, 2014).
3. Norman M. Scarborough & Jeffrey R. Cornwall (2016), Essentials of Entrepreneurship and Small Business Management, Pearson India Education Services Pvt. Ltd., Noida (UP).
4. CharantimathPoornima M. (2018), Entrepreneurship Development and Small Business Enterprises, Pearson India Education Services Pvt. Ltd., Noida (UP).
5. Neck, H.; Neck, C.: and Murray, E. Entrepreneurship: The Practice and Mind-set. 1st ed. Sage Publishing, 2018.Chari S.N., Business Gurus Speak, Macmillan India Ltd, New Delhi (2002).
6. Dr. Sudhir Sharma, Balraj Singh & Sandeep Singhal: Entrepreneurship Development, Wisdom Publications, New Delhi.

Course code: M.A. Economics Course name: Dissertation &Viva Course category: RP
Credits: 6 **Teaching scheme:** L-0 P-2 T-0 **Evaluation scheme: CA–40, MSE–20, ESE–00, TW–0, PR–40**
Pre-requisites: Intermediate knowledge of **Entrepreneurship Economics**
Course Objectives
1. To learn practically how to carry out socioeconomic research
2. To undertake research project with submission of research proposal
3. To undertake data collection and data interpretation activities
4. To learn about research reporting and writing research dissertation
Course Outcome

1.	Students will learn practically how to carry out socioeconomic research
2.	Students will undertake research project with submission of research proposal
3.	Students will undertake data collection and data interpretation activities
4.	Students will learn about research reporting and writing research dissertation

Course Outline

Unit	Contents	Teaching Hours
Unit 1	Students will undertake a research project with specific research topic of societal impact.	4
Unit 2	Students will investigate the contemporary research problem for providing solutions	4
Unit 3	Students will submit a research proposal with his research design and time table	4
Unit 4	Students will collect data as per research design and analyze the data for conclusions	4
Unit 5	Students will specifically describe the societal impact of research findings	4
Unit 6	Students will write a research report in the form of dissertation	4
		24

Note: In Viva the students will be interviewed on the research problem, its significance, research design, research carried out and findings of the research
Reference:
1. C.R. Kothari (2023), Research Methodology , New Age International Publishers.