SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Shri Vile Parle Kelavani Mandal's

MITHIBAI COLLEGE OF ARTS, CHAUHAN INSTITUTE OF SCIENCE & AMRUTBEN JIVANLAL COLLEGE OF COMMERCE AND ECONOMICS (AUTONOMOUS)

NAAC Reaccredited 'A' grade, CGPA: 3.57 (February 2016),

Granted under RUSA, FIST-DST & -Star College Scheme of DBT, Government of India,

Best College (2016-17), University of Mumbai

Affiliated to the

UNIVERSITY OF MUMBAI

Program: F.Y.B.A.

Course: ECONOMICS

Semester I & II

Choice Based Credit System (CBCS) with effect from the Academic year 2020-21

PROGRAMME OUTCOMES (B.A.):

PO1: understand the core foundations of social sciences.

PO2: appreciate the diversity of opinions, cultures, beliefs and perspectives.

PO3: apply critical thinking and effective communication in real world scenarios.

PO4: uphold rationality and ethical values in the pursuit of effective citizenship.

PO5: utilize the analytical and soft skills acquired to facilitate an entry into the job market.

PO6: pursue the ideal of lifelong learning in a tech-savvy world.

PROGRAMME SPECIFIC OUTCOMES (PSO'S):

On completion of the **B.A. – ECONOMICS** , the learners should be enriched with knowledge and be able to-

PSO1: understand the theoretical foundations of economics.

PSO2: apply economic theory for economic analysis, forecasting and policy making, in the context of real world issues.

PSO3: identify economic problems and use qualitative and quantitative tools for building econometric models, testing the validity of theory and drawing inferences for suggesting possible solutions to the problem.

PSO4: use latest statistical software tools such as Excel and R for economic modeling of research problems and quantitative analysis.

PSO5: have a thorough exposition of contemporary economic issues through debates, discussions, research and report writing.

PSO6: apply critical thinking and reasoning ability for conducting review of literature, undertaking formal economic research and effectively communicating the research outcomes.

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Evaluation Pattern

The performance of the learner will be evaluated in two components. The first component will be a Continuous Assessment with a weightage of 25% of total marks per course. The second component will be a Semester end Examination with a weightage of 75% of the total marks per course. The allocation of marks for the Continuous Assessment and Semester end Examinations is as shown below:

a) **Details of Continuous Assessment (CA)**
25% of the total marks per course:

Continuous Assessment	Details	Marks
Component 1 (CA-1)	PRESENTATIONS CUM ASSIGNMENTS	15 marks
Component 2 (CA-2)	CLASS TEST	10 marks

b) **Details of Semester End Examination**
75% of the total marks per course. Duration of examination will be two and half hours:

Question Number	Description	Marks	Total Marks
Q1.	Answer any two of the following : (Any 2/3) (Based on Module 1)	(7.5 marks each)	(15)
Q2.	Answer any two of the following : (Any 2/3) (Based on Module 2)	(7.5 marks each)	(15)
Q3.	Answer any two of the following : (Any 2/3) (Based on Module 3)	(7.5 marks each)	(15)
Q4.	Answer any two of the following : (Any 2/3) (Based on Module 4)	(7.5 marks each)	(15)
Q5.	Answer any two of the following : (Any 2/4) (Based on all Modules)	(7.5 marks each)	(15)
Total Marks			75

Signature
HOD

Signature
Approved by Vice –Principal

Signature
Approved by Principal

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Preamble

This course is designed to introduce the students to elementary concepts in microeconomics and the basic building blocks of macroeconomics. The student should be able to use these concepts to understand the relevance of microeconomics to the real world. The student should be able to build on these concepts in the future to develop a deeper understanding of the economy.

Program: B.A. (2021-22)				Semester: I	
Course: MICROECONOMICS - I				Course Code: UAMAECO101	
Teaching Scheme				Evaluation Scheme	
Lecture (Hours per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Continuous Assessment (CA) (Marks - 25)	Semester End Examinations (SEE) (Marks- 75 in Question Paper)
04	-	-	04	25	75

Learning Objectives:

1. To introduce the students to the fundamental concepts in microeconomics.
2. To understand the relevance of microeconomic phenomena in the real world.
3. To develop an understanding of the application of mathematical tools for microeconomic analysis.

Course Outcomes:

CO1: understand the fundamental principles of microeconomics and decision making behavior of microeconomic agents.

CO2: describe the relevance of microeconomic phenomena in the real world.

CO3: apply basic mathematical tools for microeconomic analysis such as graphs and linear functions.

CO4: understand the idea of an economic model and role of assumptions with examples like the Circular Flow Model.

CO5: apply market structure analysis, cost and pricing strategies to real life situations.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours

I	Introduction to Microeconomics – Concepts and Methods	15
II	Tools for Microeconomic Analysis	15
III	Market Analysis	15
IV	Cost and Pricing	15
	Total	60
PRACTICALS		-

Unit	**Topic**	**No. of Hours/Credits**
Module I	**Introduction to Microeconomics – Concepts and Methods** • How People make decisions (4 Principles) • How People interact (3 Principles) • The Economist as Scientist • Role of assumptions • Economist as Policy Advisor • Why Economists disagree ? • Circular Flow Model • Production Possibility Frontier	**15**
Module II	**Tools for Microeconomic Analysis** • Graphs in Economics (Types of Graphs, Two Variable Graphs, Curves on a Graph, Cause and effect, Graph with an omitted variable, Graph suggesting reverse causality, Problems in interpreting Numerical Graphs) • Horizontal and Vertical Curves and their Slopes and Intercepts • The Slope of a Nonlinear Curve (Arc Method, Point Method, Maximum and Minimum Points) • Equations in Linear Demand and Supply Analysis (Market Equilibrium – simultaneous equation solution using substitution and elimination methods) • Linear Cost Functions (derivation with numericals) • Linear Revenue Functions (derivation with numericals) • Linear Profit Functions and Break-even Point (Concept, derivation and numericals)	**15**

Module III	**Market Analysis** • Demand Analysis (Individual versus Market Demand, Autonomous & Derived demand – Determinants of Demand, Law of Demand, Demand Function, Demand Schedule, Demand Curve, Exceptions to Law of Demand, Changes & Variations in Demand, Case studies) • Supply Analysis (Individual versus Market Supply, Determinants of Supply, Law of Supply, Supply Function, Supply Schedule, Supply Curve, Shifts in the Supply Curve, Change in Supply, Case studies) • Market Equilibrium (Supply and Demand together - Shifts – Steps to analyzing changes in equilibrium) • Price Elasticity of Demand and Supply (Meaning of Elasticity, Types of Elasticity of Demand, Degrees of Elasticity, Computing Elasticity and Methods of Measurement, Total Revenue and Price Elasticity of Demand, Variety of Supply Curves, Case studies) • Applications to Major Economic Issues (The Economics of Agriculture, Impact of Tax on Price and Quantity, Minimum Floors and Maximum Ceilings, Minimum Wage Controversy, Energy Price Controls, Rationing by the Queues, Coupons, Purse, Case Studies)	**15**
Module IV	**Cost and Pricing** • Cost Analysis (Concepts of costs, Various Measures of Costs and Behaviour of costs in the Short run and Long run, Determinants of Cost Function, Estimating Cost Function, Case studies) • Revenue Analysis (Concepts of Revenue, Behaviour of Linear and Non-linear Revenue Curves, Relationship between Average Revenue and Marginal Revenue, Geometric proof and Mathematical derivation of Relationship between Average Revenue, Marginal Revenue and Price elasticity of demand) • Break Even Analysis (Break Even Point, Break Even Product, Profit Maximization Hypothesis, Equilibrium of firm, Total Revenue – Total Cost Approach, Marginal Revenue – Marginal Cost Approach, Second Order Condition for Equilibrium) • Pricing Practices and Strategies (Cost Plus Pricing, Marginal Cost Pricing, Multiple Product Pricing, Transfer Pricing, Average Cost Pricing, Ramsey Pricing, Peak-	**15**

	Load Pricing)	

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. N. Gregory Mankiw, Principles of Microeconomics, 7th edition, Cengage Learning, 2015, Ch 1 and 2, Mod I and II.

Additional References :

2. Budnick S. Frank, Applied Mathematics for Business, Economics and The Social Sciences, 4th ed, Tata McGraw Hill, Ch 2 and 5 , Mod II.
3. Mehta – Madnani, Mathematics for Economists, S Chand Publishers, Mod II.
4. Nordhaus and Samuelson, Economics, 19th ed, Tata McGraw Hill, Part II, Ch 7, Mod III and IV.
5. Dr. H.L.Ahuja, Managerial Economics , 8th ed, S Chand Publishers, Mod IV.
6. Dwivedi,D.N., Microeconomics :Theory and Applications; Pearson Education (Singapore) Pvt. Ltd, Delhi, Mod III
7. Sen Anindya (2007), Microeconomics: Theory and Applications, Oxford University Press, New Delhi
8. Salvatore D. (2003), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.

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Preamble

This course is designed to introduce the student to the basic building blocks of macroeconomics. Using an open economy framework, the course develops an understanding of the constituents of the open economy. The student should be able to build on these constituents in the later years so as to be able to analyze macroeconomic policies.

Program: B.A. (2021-22)				Semester: II	
Course: MACROECONOMICS - I				Course Code: UAMAECO201	
Teaching Scheme				Evaluation Scheme	
Lecture (Hours per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Continuous Assessment (CA) (Marks - 25)	Semester End Examinations (SEE) (Marks- 75 in Question Paper)
04	-	-	04	25	75

Learning Objectives:

1. **To introduce the student to the basic concepts of macroeconomics.**
2. **To develop an understanding of the constituents of an open economy.**
3. **To build their ability for analysis of macroeconomic policy framework.**

Course Outcomes:

CO1: understand the fundamental principles, nature, scope and subject matter of macroeconomics.

CO2: describe and classify the various constituents of a closed and open economy.

CO3: measure economic variables like GDP, inflation, unemployment, consumer price index, GDP deflator, investment multiplier, etc.

CO4: present formal models of income determination.

Outline of Syllabus: (per session plan)

Module	Description	No of Hours
I	Introduction to Macroeconomics – Principles and Concepts	15

II	Measuring Economic Activity	15
III	Theory of Income Determination	15
IV	Determination of Income in 3 and 4 Sector Models	15
	Total	60
PRACTICALS		-

Unit	**Topic**	**No. of Hours/Credits**
Module I	**Introduction to Macroeconomics – Principles and Concepts** • How the Economy as a whole works (3 Principles) • What is Macroeconomics about (Long Run Economic Growth, Business Cycles, Unemployment, Inflation, The International Economy, Macroeconomic Policy) • What do Macroeconomists do (Forecasting, Analysis, Research, Data Development) • Why Macroeconomists disagree (Classical versus Keynesian Approaches, Schools of Macroeconomic Thought)	**15**
		15
Module II	**Measuring Economic Activity** • The Economy's Income and Expenditure (Stocks and Flows, Circular Flow Model, Leakages and Injections, Concepts of National Income: GDP,GNP, NNP, $NNP_{FC,}$ Personal Income, Disposable Income, Green GDP, Case Studies) • The measurement of GDP (Rules for Computing GDP, Methods of Measurement, Difficulties of measuring National Income, Current Method of Measurement w.r.t. Indian Economy, Numericals on calculation of GDP) • The components of GDP (Consumption, Investment, Government Expenditures, Net Exports) • Real v/s Nominal GDP (GDP Deflator, Chain-Weighted Measures of Real GDP)	

	• Is GDP a good measure of economic well-being (Debates – Limitations of GNP as a measure of Social Welfare) • Measuring Cost of Living: The Consumer Price Index, CPI versus Inflation Rate • Correcting Economic variables for effects of inflation	
Module III	**Theory of Income Determination** • Say's Law : The Foundation of Classical Macroeconomics • Keynesian Basic 2 – Sector Model (Aggregate Expenditure, Determination of Equilibrium Level of National Income, Effective Demand, Algebraic Analysis, Numericals) • Consumption Function (Concepts of Consumption Function, Savings Function, Keynes' Theory of Consumption and Psychological Law of Consumption, Numericals) • Investment Function (Investment Demand – Meaning and Types, Investment Demand Curve, Marginal Efficiency of Capital, Accelerator, Numericals) • A Simple Model of Investment Multiplier	**15**
Module IV	**Determination of Income in 3 and 4 Sector Models** • 3 – Scctor Model (Government Expenditure and National Income) • Government Expenditure, Budget Deficit amd Capital Markets • Lumpsum Tax and Transfer Payments (Government Expenditure Multiplier, Transfer Payments Multiplier, Tax Multiplier, Numericals) • 4 – Sector Model (Foreign Trade and National Income, Foreign Trade Multiplier, Numericals) • Trade Balance and International Capital Flows	**15**

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Abel, A. B., B. S. Bernanke and D. Croushore (2011), Macroeconomics, Pearson, New Delhi, Part 1, Ch 1, Mod I.

Additional References :

1. Nordhaus and Samuelson, Economics, 19th ed, Tata McGraw Hill, Part 5, Ch 20, Mod II.
2. Dr. H.L.Ahuja, Managerial Economics , 8th ed, S Chand Publishers, Ch 3 and 4, Mod III and IV.
3. N. Gregory Mankiw, Principles of Macroeconomics, 7th edition, Cengage Learning, 2015,Ch 1, Mod I.
4. Mankiw N Gregory, Economic Principles and Applications, 2007 ed, Cengage Learning, Part 8, Ch 2 and 3, Mod II.
5. Dwiwedi D N, Macroeconomics, Theory and Policy, 3rd ed, Tata McGraw Hill, Part 2, Ch 6, Mod III.
6. Dwiwedi D N, Principles of Economics, Vikas Publishing House, New Delhi.
7. Sikdar, S. (2006), Principles of Macroeconomics, Oxford University Press, New Delhi.

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Best College (2016-17), University of Mumbai

Affiliated to the

UNIVERSITY OF MUMBAI

Program: S.Y.B.A.

Course: ECONOMICS

Semester III & IV

Choice Based Credit System (CBCS) with effect from the Academic year

2022-23

PROGRAMME OUTCOMES (B.A.):

PO1: understand the core foundations of social sciences.

PO2: appreciate the diversity of opinions, cultures, beliefs and perspectives.

PO3: apply critical thinking and effective communication in real world scenarios.

PO4: uphold rationality and ethical values in the pursuit of effective citizenship.

PO5: utilize the analytical and soft skills acquired to facilitate an entry into the job market.

PO6: pursue the ideal of lifelong learning in a tech-savvy world.

PROGRAMME SPECIFIC OUTCOMES (PSO'S):

On completion of the **B.A. – ECONOMICS** , the learners should be enriched with knowledge and be able to-

PSO1: understand the theoretical foundations of economics.

PSO2: apply economic theory for economic analysis, forecasting and policy making, in the context of real world issues.

PSO3: identify economic problems and use qualitative and quantitative tools for building econometric models, testing the validity of theory and drawing inferences for suggesting possible solutions to the problem.

PSO4: use latest statistical software tools such as Excel and R for economic modeling of research problems and quantitative analysis.

PSO5: have a thorough exposition of contemporary economic issues through debates, discussions, research and report writing.

PSO6: apply critical thinking and reasoning ability for conducting review of literature, undertaking formal economic research and effectively communicating the research outcomes.

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Evaluation Pattern

The performance of the learner will be evaluated in two components. The first component will be a Continuous Assessment with a weightage of 25% of total marks per course. The second component will be a Semester end Examination with a weightage of 75% of the total marks per course. The allocation of marks for the Continuous Assessment and Semester end Examinations is as shown below:

a) **Details of Continuous Assessment (CA)**

25% of the total marks per course:

Continuous Assessment	Details	Marks
Component 1 (CA-1)	PRESENTATIONS CUM ASSIGNMENTS	15 marks
Component 2 (CA-2)	CLASS TEST	10 marks

b) **Details of Semester End Examination**

75% of the total marks per course. Duration of examination will be two and half hours:

Question Number	Description	Marks	Total Marks
Q1.	Answer any two of the following : (Any 2/3) (Based on Module 1)	(7.5 marks each)	(15)
Q2.	Answer any two of the following : (Any 2/3) (Based on Module 2)	(7.5 marks each)	(15)
Q3.	Answer any two of the following : (Any 2/3) (Based on Module 3)	(7.5 marks each)	(15)
Q4.	Answer any two of the following : (Any 2/3) (Based on Module 4)	(7.5 marks each)	(15)
Q5.	Answer any two of the following : (Any 2/4) (Based on all Modules)	(7.5 marks each)	(15)
Total Marks			75

Signature — HOD

Signature — Approved by Vice –Principal

Signature — Approved by Principal

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S.Y.B.A Paper – II (SEMESTER - III)
MICROECONOMICS – II

Preamble

The Course is designed to develop the students' understanding of basic tools of microeconomic analysis. It builds on the material covered in semester I and is designed to help the student apply microeconomics to the real world.

Program: B.A. (2022-23)				Semester: III	
Course: MICROECONOMICS - II				Course Code: UAMAECO302	
Teaching Scheme				Evaluation Scheme	
Lecture (hrs per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Continuous Assessment (CA) (Marks - 25)	Semester End Examinations (SEE) (Marks- 75 in Question Paper)
03	-	-	03	25	75

Learning Objectives:

To introduce the students to the fundamental concepts in microeconomics and understand the relevance of microeconomic phenomena in the real world.

Course Outcomes:

CO1: understand the fundamental concepts in microeconomics.

CO2: describe the relevance of microeconomic phenomena in the real world.

CO3: apply utility analysis to demand behavior of consumers and production analysis to the decision making of firms.

CO4: analyse the features and working of market structures including perfect competition and monopoly, using tools of microeconomic analysis.

CO5: examine the forms and degrees of price discrimination, profitability under price discrimination and international dumping.

CO6: compare and evaluate the efficiency of the two extreme forms in market structures namely perfect competition and monopoly.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Utility Analysis	12

II	Production Analysis	11
III	Competitive Markets	11
IV	Monopoly	11
	Total	45
PRACTICALS		-

Unit	Topic	No. of Hours/Credits
Module I	**Utility Analysis** • Consumer preferences (strong ordering-weak ordering-completeness- transitivity-rational preferences) • Indifference Curve Analysis • Consumer's Equilibrium • Income – Substitution – Price Effect • Derivation of Demand Curve	**12 hours**
Module II	**Production Analysis** • Meaning and Types of Production function (Two Factor Analysis) • Isoquants and their properties • Least Cost Factor Combination • Derivation of factor demand curves • Returns to scale	**11 hours**
Module III	**Competitive Markets** • Features of Perfect Competition • Derivation of Short Run Supply Curve • Short Run Equilibrium of Firm and Industry • Long Run Equilibrium of Firm and Industry • Economic Efficiency of Perfect Competition	**11 hours**
Module IV	**Monopoly** • Definition and Sources of Monopoly • Profit Maximisation (Short Run and Long Run) • Price Discrimination • Dumping	**11 hours**

	• Lerner's measure of monopoly power	

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Salvatore D. 2003, Microeconomics: Theory and Applications, OUP, New Delhi, Ch 3 & 4 Mod I, Ch 7 & 8 Mod II, Ch 9 Mod III, Ch10 Mod IV

Additional References :

1. N. Gregory Mankiw, Principles of Microeconomics, 7th edition, Cengage Learning
2. Dr. H.L.Ahuja, Advanced Economic Theory, S Chand Publishers, Mod I,II,III,IV
3. Dr. H.L.Ahuja, Managerial Economics , 8th ed, S Chand Publishers, Mod IV

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S.Y.B.A Paper – III (SEMESTER - III)

Elementary Mathematical and Statistical Tools for Economic Analysis - I

Preamble

The Course is designed to develop the students' understanding of basic quantitative tools of economic analysis. It introduces the student to basic mathematical and statistical techniques of collecting, tabulating and representing economic data. It equips the student with the knowledge of basic calculus for univariate and multivariate functions and measures of central tendency.

Program: B.A. (2022-23)				Semester: III	
Course: Elementary Mathematical and Statistical Tools for Economic Analysis – I				Course Code: UAMAECO303	
Teaching Scheme				Evaluation Scheme	
Lecture (hrs per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Continuous Assessment (CA) (Marks - 25)	Semester End Examinations (SEE) (Marks- 75 in Question Paper)
03	-	-	03	25	75

Learning Objectives:

1. **To teach the learner how to collect data and present it in various forms for economic interpretation.**
2. **To acquaint the student with use of polynomials for solving simple economic problems.**
3. **To introduce students to rules of differentiation for univariate and multivariate functions.**
4. **To compute and interpret the measures of central tendency for various types of data.**

Course Outcomes:

CO1: comprehend economic applications of equations.

CO2: collect data and present it in various forms for economic interpretation.

CO3: understand the relevance of quantitative tools in measurement of economic variables and models.

CO4: use basic calculus for univariate and multivariate functions.

CO5: apply the measures of central tendency to data.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Economic Applications of Equations	12
II	Basic Calculus	11

III	Collection, Tabulation and Representation of data	11
IV	Measures of Central Tendency	11
	Total	45
PRACTICALS		-

Unit	Topic	No. of Hours/Credits
Module I	**Economic Applications of Equations** • Polynomials (Linear and Quadratic) • Simultaneous Equations • Indifference Curves and Iso cost Lines • Income determination Models • IS-LM Analysis	**12 hours**
Module II	**Basic Calculus** • Derivatives • Rules of Differentiation • Mutivariate Functions and Partial Derivatives (only basic rules)	**11 hours**
Module III	**Collection, Tabulation and Representation of data** • Collection of Data : Primary and Secondary data • Classification and Tabulation of Data • Frequency Distribution (Grouped and Ungrouped frequency distributions) • Diagrammatic Presentation (Bar diagrams, Pie diagrams and Histograms)	**11 hours /**
Module IV	**Measures of Central Tendency** • Characteristics of a good Average • Arithmetic Mean (Mathematical Properties, Calculation, Merits and Demerits) • Median (Calculation, Graphical method, Merits and Demerits) • Mode (Calculation, Graphical method, Merits and Demerits)	**11 hours**

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Dowling Edward T., Introduction to Mathematical Economics, Schaum's Outlines 3rd Ed, Tata Mcgraw Hill, New Delhi.
2. Miller Irwin & M. Miller., John E. Freund's Mathematical Statistics with Applications', Pearson Education India, 8th edition (2013)

Additional References :

1. Dowling Edward T., Theory and Problems of Mathematical Methods for Business and Economics, McGraw –Hill, 1993
2. Gupta S.P., Statistical Methods, S. Chand, New Delhi, Vol I
3. Sancheti D.C. and V.K. Kapoor, Statistics-Theory, Methods and Applications, S. Chand, New Delhi

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SYBA Paper – II (Semester - IV)
Macroeconomics - II

Preamble

This paper is designed to build on the understanding of basic macroeconomic identity introduced in semester II. The objective of this paper is to enable the student to understand how interest rates and income levels are determined in a closed economy. This paper will also introduce concepts of inflation and unemployment and enable the student to understand determination of aggregate price level in a closed economy framework.

Program: B.A. (2022-23)				Semester: IV	
Course: MACROECONOMICS - II				Course Code: UAMAECO402	
Teaching Scheme				Evaluation Scheme	
Lecture (hrs per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Continuous Assessment (CA) (Marks - 25)	Semester End Examinations (SEE) (Marks- 75 in Question Paper)
03	-	-	03	25	75

Learning Objectives:

To introduce the students to the fundamental concepts in macroeconomics and understand the relevance of macroeconomic phenomena in the real world.

Course Outcomes:

CO1: understand the basic concepts and significance of macroeconomics.

CO2: describe the functions and determinants of money supply.

CO3: compare and contrast the theories of money supply.

CO4: examine the motives for holding money.

CO5: interpret RBI measures of liquidity in India.

CO6: examine the interdependence between goods market and money market.

CO7: describe the general equilibrium framework of IS–LM model.

CO8: analyse the AD-AS model and understand the relationship between price and other macroeconomic variables.

CO9: analyze the effectiveness of macroeconomic policies in the context of inflation and unemployment.

CO10: discuss types of inflation and factors causing inflationary tendencies in an economy.

CO11: discuss and contrast different types of unemployment

CO12: describe stagflation and contrast with other types of macroeconomic shocks to aggregate supply.

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Outline of Syllabus: (per session plan)		
Module	**Description - Title**	**No of Hours**
I	Money Supply	12
II	Money, Unemployment and Inflation	11
III	IS – LM Model	11
IV	AD – AS Model	11
	Total	45
PRACTICALS		-

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Unit	Topic	No. of Hours/Credits
Module I	**Money Supply** • Meaning, Functions of Money • Meaning, Constituents of Money supply • Determinants of Money Supply (High powered money, Money Multiplier) • Quantity theory of Money (Fisher, Marshall, Robertson, Pigou and Keynes) • RBI's Approach to measurement of Money Supply	**12 hours**
Module II	**Money, Unemployment and Inflation** • Motives for Holding Money – Demand for Money • Unemployment : Meaning and types • Inflation – Meaning, types (Demand-Pull, Cost-Push) • Causes, Effects and Measures to control Inflation	**11 hours**
Module III	**IS – LM Model** • Goods market equilibrium ; Derivation of IS curve • Money Market equilibrium : Derivation of LM curve • Shifts in IS and LM • Simultaneous equilibrium between Goods and Money Market.	**11 hours**
Module IV	**AD – AS Model** • Derivation of Aggregate demand • Aggregate Supply Curve • Equilibrium between Aggregate Demand and Aggregate Supply • Shifts in AS curve and Stagflation • Inflation and Unemployment : Phillips Curve	**11 hours**

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

- The department faculty and students will undertake a visit to RBI with the aim of understanding RBI's monetary policy and role in banking system.

Suggested Readings:

Basic Reference :

1. Abel, A. B., B. S. Bernanke and D Croushore (2011), Macroeconomics, Pearson, New Delhi, Mod I
2. Ahuja H.L., Macroeconomics : Theory and Policy , S Chand Publ., New Delhi, Mod II,III, IV

Additional References :

1. Sikdar, S. (2006), Principles of Macroeconomics, OUP, New Delhi, Ch 1 & 2 Mod II & III, Ch 8 & 9 Mod IV
2. N. Gregory Mankiw, Principles of Macroeconomics, 7th edition, Cengage Learning
3. Salvatore D. 2003, Macroeconomics: Theory and Applications, OUP, New Delhi
4. Errol D'Souza, Macroeconomics, Pearsons, New Delhi

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SYBA Paper – III (Semester – IV)
Elementary Mathematical and Statistical Tools for Economic Analysis – II

Preamble

The Course is designed to develop the students' understanding of basic quantitative tools of economic analysis such as integration and matrix algebra. It introduces the student to basic statistical techniques of finding and interpreting measures of dispersion and index numbers.

Program: B.A. (2022-23)				**Semester: IV**	
Course: Elementary Mathematical and Statistical Tools for Economic Analysis - II				**Course Code: UAMAECO403**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (hrs per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 25)**	**Semester End Examinations (SEE) (Marks- 75 in Question Paper)**
03	-	-	03	25	75

Learning Objectives:

To introduce the learner to the basic mathematical and statistical tools of economic analyses.

Course Outcomes:

CO1: understand the application of basic mathematical and statistical tools for economic analysis.

CO2: use mathematical tools such as integration in measurement of economic phenomena.

CO3: use matrix algebra in measurement of economic phenomena.

CO3: compute and interpret the measures of dispersion for various forms of data.

CO4: estimate and interpret index numbers.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Integration	12
II	Matrix Algebra	11
III	Measures of Dispersion	11
IV	Index Numbers	11
	Total	45

PRACTICALS	--

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Unit	Topic	No. of Hours/Credits
Module I	**Integration** • Rules of Integration • Indefinite Integrals • Definite Integrals • Area under a curve	**12 hours**
Module II	**Matrix Algebra** • Definitions and terms • Addition and subtraction of Matrices • Multiplication of Matrices • Commutative, distributive and associative Laws of Matrices • Determinants	**11 hours**
Module III	**Measures of Dispersion** • Characteristics of an ideal measure • Absolute and Relative Measures • Range and Quartile deviation • Mean deviation • Standard deviation	**11 hours**
Module IV	**Index Numbers** • Characteristics of index numbers • Simple and Composite index numbers • Laspeyre's and Paasche's Index numbers • Fischer's index number • Cost of living and deflating index numbers	**11 hours**

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Dowling Edward T., Introduction to Mathematical Economics, Schaum's Outlines 3rd Ed, Tata Mcgraw Hill, New Delhi.
2. Miller Irwin & M. Miller., John E. Freund's Mathematical Statistics with Applications', Pearson Education India, 8th edition (2013)

Additional References :

3. Dowling Edward T., Theory and Problems of Mathematical Methods for Business and Economics, McGraw –Hill, 1993
4. Gupta S.P., Statistical Methods, S. Chand, New Delhi, Vol I
5. Sancheti D.C. and V.K. Kapoor, Statistics-Theory, Methods and Applications, S. Chand, New Delhi

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Shri Vile Parle Kelavani Mandal's

MITHIBAI COLLEGE OF ARTS, CHAUHAN INSTITUTE OF SCIENCE & AMRUTBEN JIVANLAL COLLEGE OF COMMERCE AND ECONOMICS (AUTONOMOUS)

NAAC Reaccredited 'A' grade, CGPA: 3.57 (February 2016),

Granted under RUSA, FIST-DST & -Star College Scheme of DBT, Government of India,

Best College (2016-17), University of Mumbai

Affiliated to the

UNIVERSITY OF MUMBAI

Program: T.Y.B.A.

Course: ECONOMICS

Semester V & VI

Choice Based Credit System (CBCS) with effect from the Academic year 2020-21

PROGRAMME OUTCOMES (B.A.):

PO1: understand the core foundations of social sciences.

PO2: appreciate the diversity of opinions, cultures, beliefs and perspectives.

PO3: apply critical thinking and effective communication in real world scenarios.

PO4: uphold rationality and ethical values in the pursuit of effective citizenship.

PO5: utilize the analytical and soft skills acquired to facilitate an entry into the job market.

PO6: pursue the ideal of lifelong learning in a tech-savvy world.

PROGRAMME SPECIFIC OUTCOMES (PSO'S):

On completion of the **B.A. – ECONOMICS** , the learners should be enriched with knowledge and be able to-

PSO1: understand the theoretical foundations of economics.

PSO2: apply economic theory for economic analysis, forecasting and policy making, in the context of real world issues.

PSO3: identify economic problems and use qualitative and quantitative tools for building econometric models, testing the validity of theory and drawing inferences for suggesting possible solutions to the problem.

PSO4: use latest statistical software tools such as Excel and R for economic modeling of research problems and quantitative analysis.

PSO5: have a thorough exposition of contemporary economic issues through debates, discussions, research and report writing.

PSO6: apply critical thinking and reasoning ability for conducting review of literature, undertaking formal economic research and effectively communicating the research outcomes.

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Evaluation Pattern

The performance of the learner will be evaluated in two components. The first component will be a Continuous Assessment with a weightage of 25% of total marks per course. The second component will be a Semester end Examination with a weightage of 75% of the total marks per course. The allocation of marks for the Continuous Assessment and Semester end Examinations is as shown below:

a) **Details of Continuous Assessment (CA)**
25% of the total marks per course:

Continuous Assessment	Details	Marks
Component 1 (CA-1)	PRESENTATIONS CUM ASSIGNMENTS	12 marks
Component 2 (CA-2)	CLASS TEST	10 marks

b) **Details of Semester End Examination**
75% of the total marks per course. Duration of examination will be two and half hours:

Question Number	Description	Marks	Total Marks
Q1.	Answer any two of the following : (Any 2/3) (Based on Module 1)	(7.5 marks each)	(12)
Q2.	Answer any two of the following : (Any 2/3) (Based on Module 2)	(7.5 marks each)	(12)
Q3.	Answer any two of the following : (Any 2/3) (Based on Module 3)	(7.5 marks each)	(12)
Q4.	Answer any two of the following : (Any 2/3) (Based on Module 4)	(7.5 marks each)	(12)
Q5.	Answer any two of the following : (Any 2/4) (Based on all Modules)	(7.5 marks each)	(12)
Total Marks			75

Signature
HOD

Signature
Approved by Vice –Principal

Signature
Approved by Principal

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Preamble

The course is designed to provide sound training in microeconomic theory. Since students have already studied the perfect competition and monopoly, the focus of this course is on the study of imperfect competition, general equilibrium theory, welfare economics and game theory.

Program: B.A. (2021-22)				Semester: V	
Course: MICROECONOMICS - III				Course Code: UAMAECO504	
Teaching Scheme				Evaluation Scheme	
Lecture (per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Continuous Assessment (CA) (Marks - 25)	Semester End Examinations (SEE) (Marks- 75 in Question Paper)
04	-	-	04	25	75

Learning Objectives:

To understand the relevance of microeconomic phenomena in the real world.

Course Outcomes:

CO1: understand the characteristics and working of imperfectly competitive market models like monopolistic competition, collusive and non-collusive oligopoly.

CO2: understand and apply the concepts of game theory and Nash equilibrium to economic events.

CO3: analyze the criteria of social welfare and apply the general equilibrium framework in the context of welfare economics.

CO4: describe market failures using examples of asymmetric information, adverse selection, moral hazard, market signaling and the principal - agent problem.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Monopolistic Competition and Oligopoly	12

II	Game Theory	12
III	General Equilibrium and Welfare Economics	12
IV	Market Failure	12
	Total	48
PRACTICALS		-

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Unit	Topic	No. of Hours/Credits
Module I	**Monopolistic Competition and Oligopoly** • Monopolistic competition – Features and equilibrium • Oligopoly – Kinked demand hypothesis • Cournot model and Bertrand model • Collusion, Cartels and Price Leadership	**12**
Module II	**Game Theory** • Basics of Game Theory • Prisoner's Dilemma • Dominant strategy equilibrium • Nash Equilibrium • Ultimatum Game	**12**
Module III	**General Equilibrium and Welfare Economics** • Interdependence in the Economy • Pareto Optimality criterion of Social Welfare • Marginal Conditions of Pareto Optimal Resource Allocation • Kaldor – Hicks Compensation Criterion • Arrow's Impossibility Theorem	**12**
Module IV	**Market Failure** • Missing Markets • Asymmetric Information: The Market for Lemons • Adverse selection & Market Signalling: Insurance markets • The Problem of Moral Hazard • The Principal - Agent Problem: Efficiency Wage Theory • Coase Theorem • Tragedy of Commons	**12**

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Salvatore, D; Microeconomics: Theory and Applications, Oxford University Press, New Delhi 2006, Ch 11 & 12 Mod I, Ch 12 Mod II, Ch 17 Mod III ,Ch 18 & 19 Mod IV

Additional References :

2. Koutsoyiannis, Modern Microeconomics, Macmillan Press Ltd., London
3. Mankiw, N. Gregory, Principles of Microeconomics, 7th edition, Cengage Learning 2012
4. Mansfield, Edwin, Microeconomics: Theory and Applications, 5th Edition,W. W. Norton & Company, New York 1985
5. Sen, Anindya (2007), Microeconomics: Theory and Applications, Second Edition Oxford University Press, New Delhi, 2007
6. R. Gibbons (1992), A Primer in Game Theory, Harvester Wheatsheaf

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Preamble

The paper aims to introduce concepts, theories and policies regarding growth and development as it has evolved over the years. The contemporary as well as the classical theories of growth and development are explained. Issues related to population, poverty and human resources are taken up for discussion to cover all the important areas of development Economics.

Program: B.A. (2021-22)				**Semester: V**	
Course: ECONOMICS OF DEVELOPMENT				**Course Code: UAMAECO505**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 25)**	**Semester End Examinations (SEE) (Marks- 75 in Question Paper)**
04	**-**	**-**	**04**	**25**	**75**

Learning Objectives:

To introduce concepts, theories and policies regarding growth and development as it has evolved over the years.

Course Outcomes:

CO1: understand the concepts and models of growth and development ranging from the traditional to modern such as Sen's Capabilities Approach.

CO2: describe the concepts of human and sustainable development, HDI and GDI.

CO3: analyze the classical and the contemporary theories of growth and development that have evolved in the recent years.

CO4: describe and analyze the policies adopted across the world economy for alleviation of problems such as overpopulation, poverty and income inequalities

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
1	Principles and Concepts	12

II	Theories of Development : Classical and Contemporary	12
III	Poverty, Inequality and Development	12
IV	Population Growth and Economic Development	12
	Total	48
PRACTICALS		-

Unit	Topic	No. of Hours/Credits
Module I	**Principles and Concepts** • Traditional Economic Models • The new economic view of development • Sen's Capabilities Approach • HDI, GDI • Sustainable Development	**12**
Module II	**Theories of Development : Classical and Contemporary** • Rostow's Stages of Growth • The Harrod – Domar Growth Model • The Lewis theory of Development • Solow's Neoclassical Growth Model • Romer's Endogenous Growth Model	**12**
Module III	**Poverty, Inequality and Development** • Measuring Poverty – (Absolute, Relative, Poverty Gap, HPI) • Measuring Income Inequality – (Size distribution, Lorenz Curve, Gini Coefficient) • Kuznets' Inverted-U Hypothesis • Thomas Piketty's Income Inequality theory • Policy Options (for reducing poverty and excessive income inequalities)	**12**
Module IV	**Population Growth and Economic Development** • Basic Issues: Population Growth and the Quality of Life • Theory of Demographic Transition	**12**

	• Causes of High Fertility in Developing Countries: The Malthusian, Gary Becker's Theory of Fertility • The Consequences of High Fertility: Some Conflicting Opinions • Policy Approaches (w.r.t. Population programmes in developing countries)	

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Todaro, Michael P. and Stephen C. Smith., Economic Development, 8e. Delhi: Pearson Education, 2004.,Ch 1 Mod I, Ch 4 Mod II, Ch 6 Mod III, Ch 7 Mod IV

Additional References :

2. Thirlwall, A.P., Growth and Development, 8e. New York: Palgrave MacMillan, 2005
3. Meier, Gerald M. and James E. Rauch., Leading Issues in Economic Development, 8e. New Delhi: Oxford Univ. Press, 2006
4. Misra & Puri, Growth and Development, Himalaya Publishers, Mumbai, 2005
5. Jhingan M.L. , The Economics of Development and Planning, Vrinda Publications, 2005
6. Piketty Thomas, The Economics of Inequality, Harvard University Press, 2012.

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Preamble

There has been a paradigm shift in the structure of the Indian industrial sector and the policies governing it ever since the new era of globalization and liberalization has ushered in. This paper intends to equip the students with the knowledge about the fundamentals of Industrial Economics and also the latest policies relating to the Indian Industry. This paper also introduces the student to the Indian Labour market.

Program: B.A. (2021-22)				**Semester: V**	
Course: INDUSTRIAL AND LABOUR ECONOMICS				**Course Code: UAMAECO506**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (Hours per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 25)**	**Semester End Examinations (SEE) (Marks- 75** in Question Paper)
03	-	-	3.5	25	75

Learning Objectives:

To equip the students with the knowledge about the fundamentals of Industrial Economics and also the latest policies relating to the Indian Industry.

Course Outcomes:

CO1: understand the fundamental concepts of industrial and labour economics.

CO2: describe the structure and profile of the Indian industrial sector and the dynamic changes since globalization and liberalization with reference to mergers, acquisitions and global value chains.

CO3: analyze the theories of industrial location and discuss the problem of dispersion and regional imbalance.

CO4: describe and analyze the issues of industrial productivity and industrial sickness.

CO5: understand and analyze the problems and reforms in the Indian labour market.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours

I	Introduction to Industrial Economics	9
II	Industrial Location and Problem of Regional Imbalance	9
III	Industrial Productivity and Industrial Sickness	9
IV	Introduction to Indian Labour Market	9
	Total	36
PRACTICALS		-

Unit	Topic	No. of Hours/Credits

Module I	**Introduction to Industrial Economics**
	• Meaning and Scope of Industrial Economics
	• Industrial Profile
	  o Private Sector – Performance and Problems
	  o Cooperatives – Features, types, merits and demerits
	  o Public Sector – Role, Performance and Problems
	• Motives for Mergers and Acquisition
	• Digital Network Business Models – Facebook, GOOGLE, Airbnb, Amazon etc.
		9

Module II	**Industrial Location and Problem of Regional Imbalance** • Determinants of Industrial Location • Theories of Industrial Location o Weber's and Sargent Florence's Theories • Dispersion of Industries and the problem of Regional Imbalance • Global Value Chains (GVCs) : concept, impact and implications	**9**
Module III	**Industrial Productivity and Industrial Sickness** • Concept and Measurement of Industrial Productivity • Factors Affecting Industrial Productivity • Industrial Sickness – Causes, Effects and Remedial Measures	**9**

	• Rationalisation – Concept, Aspects and Impact	
Module IV	**Introduction to Indian Labour Market** • Characteristics of the Indian Labour Market • Child Labour and Female Labour – Problems and Measures • Globalisation and Indian Labour Market • Labour Market Reforms • Causes of Industrial Disputes and their Settlement Mechanism	9

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

- ❖ The department faculty and students will undertake an industrial visit with the aim of understanding industrial practises and operations.

Suggested Readings:

Basic References :

- Cherunilam, F. (1994), Industrial Economics : Indian Perspective, Himalaya
- Singh J.K., Labour Economics – Principles, Problems and Practices, Deep Publications Pvt. Ltd., New Delhi

Additional References :

- Agrawal A.N. (2011), Indian Economy, New Age International Publishers, New Delhi
- Barthwal R.R. (2007), Industrial Economics, New Age International Publishers, New Delhi, Ch 1,2 & 8 Mod I, Ch 16 Mod II
- Publishing House, Mumbai, Ch 19 Mod II, Ch 17 & 18 Mod III
- Mishra S.K. and Puri V.K.(2008), Indian Economy, Himalaya Publishing House, Mumbai, Ch 30 & 31 Mod I, Ch 31 & 33 Mod III, Ch 29 & 40 Mod IV
- Datt R. and Sundaram K.P.M. (2009), Indian Economy, S.Chand & Co., New Delhi
- Desai S.S.M. and Bhalerao N (2008), Industrial Economy of India, Himalaya Publishing House, Mumbai
- Ranjana Seth (2010), Industrial Economics , Ane Books Pvt. Ltd., New Delhi
- Reasons Behind Mergers
- Sinha V.C., Sinha P. and Sinha V. (2001), Industrial Economics, Lokbharati Publication, 15 - A, Mahatma Gandhi Marg, Elahabad
- Raykhelkar A.R. and Damji B.H. (2011), Industrial Economics, Vidya Books Publication, Aurangabad, Maharashtra

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Preamble

A plethora of data has emerged at an exponential rate and it is the description, interpretation and understanding of these data and drawing of accurate conclusions that is imperative for a student of Economics. The aim of this paper is to provide students with the mathematical and statistical skills and understanding needed for 'knowing why' and 'when' to apply these techniques.

Program: B.A. (2021-22)				**Semester: V**	
Course: MATHEMATICAL AND STATISTICAL TECHNIQUES FOR ECONOMIC ANALYSIS				**Course Code: UAMAECO507**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 25)**	**Semester End Examinations (SEE) (Marks- 75** in Question Paper)
04	-	-	04	25	75

Learning Objectives:

To develop an understanding of the application of mathematical and statistical tools for economic analysis.

Course Outcomes:

CO1: understand the basic mathematical and statistical techniques of economic analysis.

CO2: apply advanced calculus, higher order derivatives and matrix algebra for economic analysis.

CO3: interpret the application of correlation and regression techniques in formulating economic relationships.

CO4: comprehend the relevance of elementary probability theory in economics.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Derivatives and their applications in various areas of economic analysis	12
II	Linear Algebra	12
III	Correlation and Regression	12
IV	Elementary Probability Theory	12
	Total	48

PRACTICALS	-

Unit	Topic	No. of Hours/Credits
Module I	**Derivatives and their applications in various areas of economic analysis** • Higher order derivatives • Increasing and Decreasing functions: Concavity and Convexity • Extreme Values: Maxima and Minima • Optimisation of Economic functions	**12**
Module II	**Linear Algebra** • Rank and Inverse of a matrix • Cramer's rule • Matrix Inversion Method • Input-Output Analysis • Linear Programming Problems (Formulation of the problem and it's Dual)	**12**
Module III	**Correlation and Regression** • Karl Pearson's Coefficient of Correlation • Spearman's Rank Correlation • Simple Regression Analysis – Method of Least Squares • Regression Coefficients	**12**
Module IV	**Elementary Probability Theory** • Sample space and events • Mutually exclusive, exhaustive and complimentary events • Conditional probability • Binomial probability distribution • Nature and Properties of the Normal Probability Distribution; Standard Scores and the Normal Curve; The Standard Normal Curve (Finding Areas when the Score is Known, Finding Scores when the Area is Known)	**12**

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic References :

1. Dowling Edward T., Introduction to Mathematical Economics, Schaum's Outline Series in Economics, Tata McGraw Hill, New Delhi, 2004, Ch 3 & 4 Mod I, Ch 10 Mod II
2. Sancheti D.C. and V.K. Kapoor, Statistics-Theory, Methods and Applications, S. Chand, New Delhi, Vol II Ch 8 & 9 Mod III, Ch 14 Mod IV

Additional References :

3. Dowling Edward T., Theory and Problems of Mathematical Methods for Business and Economics, McGraw –Hill, 1993
4. Gupta S.P., Statistical Methods, S. Chand, New Delhi, Vol I Mod III and IV
5. Lerner Joel J and P. Zima, Theory and Problems of Business Mathematics, McGraw Hill, New York, 1986
6. Pfitzner Barry C., Mathematical Fundamentals of Microeconomics, Biztantra, New Delhi, 2003
7. V. K. Kapoor and S. C. Gupta, Fundamentals of Mathematical Statistics, Sultan Chand &Sons, New Delhi
8. Wisniewski Mik, Mathematics for Economics-An integrated approach, Palgrave Macmillan, 2013
9. Tokunaga Howard. T., Fundamental Statistics for the Social and Behavioural Sciences , Sage Publications, 2015, Mod IV

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Preamble

The objective of this course is to impart a basic understanding of econometrics. The student will be able to appreciate the theoretical basis of the subject. At the same time, it will enhance the student's ability to apply the theoretical techniques to the problems of the real world. Topics like forecasting have been introduced to impart this practical orientation.

Program: B.A. (2021-22)				**Semester: V**	
Course: INTRODUCTION TO ECONOMETRICS				**Course Code: UAMAECO508**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 25)**	**Semester End Examinations (SEE) (Marks- 75 in Question Paper)**
04	-	-	04	25	75

Learning Objectives:

To develop an understanding of the application of econometric tools for economic analysis and forecasting.

Course Outcomes:

CO1: understand the basic concepts of econometric analysis.

CO2: understand the concept of a discrete and continuous random variable, its mathematical expectation and variance along with the properties of theoretical probability distributions.

CO3: use statistical inference theory for hypothesis testing.

CO4: apply classical linear regression model for validation of economic theory.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Idea of a random variable	12
II	Jointly distributed Random variables	12
III	Statistical Inference	12
IV	Regression Analysis	12

	Total	48
PRACTICALS		-

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Unit	Topic	No. of Hours/Credits
Module I	**Idea of a random variable** • Concept of a random variable: Discrete and Continuous • Expected values of a random variable • Variance of a random variable • Discrete random variables: Bernoulli, Binomial, Poisson • Continuous random variables: The Normal distribution	**12**
Module II	**Jointly distributed Random variables** • Joint and Marginal distributions for bivariate random variables • Conditional Probability • Conditional Mean and Variance • Covariance • Central Limit Theorem	**12**
Module III	**Statistical Inference** • Concepts and steps in Hypothesis Testing (Population, Sample, Population Parameter, Sample Statistic, Null and Alternative Hypothesis, Test of significance, Critical Region, One-tail and Two-tail tests, Type I and II Errors) • Basic Statistical Methods for Hypothesis testing – o The Standard Normal distribution (significance testing for mean when the population variance is known) o The t distribution (hypothesis testing when population variance is unknown) o The Chi – square distribution (testing for sample variance with known population variance) o The F distribution (hypothesis testing for comparing sample variance)	**12**
Module IV	**Regression Analysis** • Two variable regression model (Hypothetical Example) • The concept of the PRF and SRF	**12**

	• Classical assumptions of regression • Derivation of the OLS estimators and their variance • Tests of Hypothesis, Confidence Intervals for OLS estimators • Measures of Goodness of Fit: R square and adjusted R square	

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Gujarati Damodar, Basic Econometrics, Ch 1 Mod I, Ch 5 & 6 Mod IV

Additional References :

2. Gujarati Damodar, Econometrics by Example, McGraw Hill, NewYork
3. Hatekar Neeraj (2009), Econometrics: The First Principles A Friendly Introduction
4. Kapoor V. K. (2011), Operations Research Problems & Solutions, Sultan Chand & sons
5. Lipschutz (Schaum Series), Theory and Problems of Statistics
6. Gupta S.P., Statistical Methods, S. Chand, New Delhi, Vol II Ch 1 & 2 Mod I & II, Vol II Ch 3 Mod III
7. Tokunaga Howard. T., Fundamental Statistics for the Social and Behavioural Sciences , Sage Publications, 2015, Mod III and IV

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Preamble

The main objective of this paper is to strengthen a student's critical thinking and reasoning ability at planning and conducting economic research and to enable them to communicate the outcomes of their research effectively. The students will be assigned broad areas of research interests in Economics and will be guided to conduct research using a wide variety of qualitative and quantitative tools. Modules on structure of research, theory, types and methodology of research will be instructed. The learner is then expected to undertake the practice by carrying out a research assignment and presenting it in the form of a research report.

Program: B.A. (2021-22)				**Semester: V**	
Course: PROJECT				**Course Code: UAMAECO509**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks – 100)**	**Semester End Examinations (SEE)**
03	**-**	**-**	**3.5**	**100**	**N.A.**

Learning Objectives:

The main objective of this paper is to strengthen a student's critical thinking and reasoning ability at planning and conducting economic research and to enable them to communicate the outcomes of their research effectively.

Course Outcomes:

CO1: apply critical thinking and reasoning ability for planning and conducting formal economic research.

CO2: use a variety of qualitative and quantitative tools for the purpose of doing research.

CO3: use statistical software such as Excel for data management and analysis.

CO4: communicate effectively the findings of the research undertaken.

- A RESEARCH METHODOLOGY WORKSHOP of three hours will be conducted for students in Semester V to enable understanding and inculcate skills required for their research project. The topics covered in the sessions will include
  - Introduction to Research Methodology
  - Research Problem and Design

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- Sample Surveys and Statistical Methods
- Data Analysis using Excel –
  I. Pivot tables and Charts
  II. Measures of Central Tendency and Dispersion

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Preamble

This course introduces the students to formal modelling of a macroeconomic theory with analytical tools. It discusses determination of exchange rates and the benefits and costs of fixed and flexible exchange rate and also takes a student through the history of evolution of exchange rates and crises.

Program: B.A. (2021-22)				Semester: VI	
Course: MACROECONOMICS - III				Course Code: UAMAECO604	
Teaching Scheme				Evaluation Scheme	
Lecture (per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Continuous Assessment (CA) (Marks - 25)	Semester End Examinations (SEE) (Marks- 75 in Question Paper)
04	-	-	04	25	75

Learning Objectives:

To understand the relevance of macroeconomic phenomena in the real world.

Course Outcomes:

CO1: familiar with basic concepts of open economy macroeconomics such as balance of payments, exchange rates and working of the foreign exchange market.

CO2: understand and analyze the monetary approach to balance of payments.

CO3: compare the advantages and disadvantages of fixed and flexible exchange rates and discuss the relevance of Mundell Fleming model in the context of impossible trinity.

CO4: describe the evolution of international monetary history leading up to the Global financial crisis and Euro crisis.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Open Economy	12

II	Monetary Approach to the Balance	12
III	The Mundell Fleming Model	12
IV	International Monetary History	12
	Total	48
PRACTICALS		-

Unit	Topic	No. of Hours/Credits
Module I	**Open Economy** • The Balance of Payments and Balance of Trade • Exchange rate Concepts (Fixed, Flexible, Real and Nominal) • The Foreign Exchange Market: Players and Functions • Factors affecting Exchange Rate: BOP theory • Purchasing power Parity theories	**12**
Module II	**Monetary Approach to the Balance of Payments** • Introduction • Automatic Adjustments • The Monetary Approach under Fixed Exchange Rates • The Monetary Approach under Flexible Exchange Rates • Exchange Rate Overshooting	**12**
Module III	**The Mundell Fleming Model** • Swan Diagram • IS – LM – BP Model with Fixed Exchange Rates • IS – LM – BP Model with Flexible Exchange Rates • The Policy Mix	**12**
Module IV	**International Monetary History** • The Gold Standard • The key issues debated at Bretton Woods • The collapse of the Bretton Woods system and fixing of the Dollar Standard • The European Monetary Union and emergence of Euro	**12**

	• The Global Financial Crisis • The Euro Crisis	

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Froyen, R. T.; Macroeconomics : Theory and Policy, Pearson Education Asia, Delhi 2001, Ch 14 & 15 Mod II & III

Additional References :

1. Ahuja H.L., Macroeconomics : Theory and Policy, S Chand & Co. Pvt. Ltd., New Delhi
2. Dornbusch R S, Fischer and R Startz, Macroeconomics, 8th Ed, Tata McGraw Hill, New Delhi, 2004
3. Dwivedi D N, Macroeconomics : Theory and Policy, 3e Tata McGraw Hill, New Delhi 2010, Ch 26 & 27 Mod I
4. Blanchard, Oliver Macroeconomics (4th edition, 9th edition), Pearson education, New Delhi, India
5. Sikdar, S. (2006), Principles of Macroeconomics, OUP, New Delhi, Ch 7 Mod II and III
6. Mankiw, Gregory; Macroeconomics, 6e, Worth Publishers, New York, 2003
7. Salvatore, D.; International Economics, Prentice Hall, New York, 1997, Ch 21 Mod IV
8. Robert Feenstra & Alan Taylor, International Macroeconomics, 2nd ed.
9. Yannis Varoufakis, *The Global Minotaur*

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Preamble

This course develops a systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy. It then builds on the models of open economy macroeconomics, focusing on national policies as well as international monetary systems. It concludes with an analytical account of the causes and consequences of the rapid expansion of international financial flows in recent years. Although the course is based on abstract theoretical models, students will also be exposed to real-world examples and case studies.

Program: B.A. (2021-22)				**Semester: VI**	
Course: INTERNATIONAL ECONOMICS				**Course Code: UAMAECO605**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 25)**	**Semester End Examinations (SEE) (Marks- 75** in Question Paper)
04	**-**	**-**	**04**	**25**	**75**

Learning Objectives:

To develop a systematic exposition of models that explains the composition, direction, and consequences of international trade and the determinants and effects of trade policy.

Course Outcomes:

CO1: understand the nature, scope and subject matter of international economics.

CO2: analyze international factor movements and trade controversies.

CO3: describe the various forms of economic integration such as SAARC, ASEAN.

CO4: compare the various instruments of trade policy and their relative advantages and disadvantages.

CO5: describe and evaluate the theories of international trade and discuss their application to the real world.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	International Factor Movement	12
II	Theories of International Trade	12

III	Trade Policy	12
IV	Balance of Payments	12
	Total	48
PRACTICALS		-

Unit	Topic	No. of Hours/Credits

Module I	**International Factor Movement**
	• Meaning, Nature and Scope of International Economics
	• Factors determining labour mobility
	  ○ A One-Good Model – Wage Convergence
	  ○ Lee's Theory of International Migration
	• Factors determining capital mobility
	• Classification of International capital flows -(ECBs, short term borrowings and lending, FDI, FPI)
		12

Module II	**Theories of International Trade** • Absolute Advantage • Comparative Cost Advantage • The Heckscher–Ohlin Theory • Linder's Theory of Volume of Trade and Demand Pattern • Vernon's Product Cycle Theory	**12**
Module III	**Trade Policy** • Instruments of Trade Policy (Tariff and Non-Tariff Barriers) • Forms of Economic Integration (SAARC & ASEAN) • From GATT to WTO • Controversies in Trade Policy (with respect to Environment, Labour Standards, and Culture)	**12**
Module IV	**Balance of Payments** • Meaning and Structure of BOP • BOP always balances • BOP disequilibrium – Types and Causes • Measures to correct BOP disequilibrium – Monetary and Non Monetary	**12**

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To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic References :

1. Cherunilam Francis, *International Economics*, 2009, 5th Edition, Tata McGraw-Hill Education Private Limited, New Delhi
2. Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011, Ch 2 & 5 Mod II, Ch 13 Mod IV

Additional References :

3. Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012, Ch 1 Mod I
4. Jhingan M L,International Economics, 6e Vrinda Publications,Delhi, Ch 13 Mod II, Ch 55 & 56 Mod III
5. Gordon Hanson, 'The Rise of Middle Kingdoms: Emerging Economies in Global Trade', Journal of Economic Perspectives, Spring 2012
6. Melitz M. and Trefler D., 'Gains from Trade When Firms Matter', Journal of Economic Perspectives, Spring 2012

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Preamble

The basic purpose of this paper is to acquaint students with various components of the Indian financial system, its working and the trends and turns that have taken place over the years especially since financial sector reforms.

Program: B.A. (2021-22)				**Semester: VI**	
Course: INDIAN FINANCIAL SYSTEM				**Course Code: UAMAECO606**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA)** (Marks - 25)	**Semester End Examinations (SEE)** (Marks- 75 in Question Paper)
03	-	-	3.5	25	75

Learning Objectives:

To acquaint students with various components of the Indian financial system, it's working and trends in recent years.

Course Outcomes:

CO1: understand the various components of Indian financial system and indicators of financial development.

CO2: analyze financial sector reforms since 1990s.

CO3: familiar with the operations and growth of financial markets and services.

CO4: examine RBI's monetary policy and transmission mechanism of monetary policy.

CO5: describe and evaluate the developments in the Indian banking sector since 1990s.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Indian Financial System: Structure	9
II	Banking in India since 1990s	9
III	Money and Capital Markets in India	9

IV	Non-Banking sector of the Financial System	9
	Total	36
PRACTICALS		-

Unit	Topic	No. of Hours/Credits
Module I	**Indian Financial System: Structure** • Meaning and components of the Financial System • Financial System and Economic Development • Indicators of Financial Development: FR, FIR, NIR and IR • Overview of financial sector reforms since 1990s	9
Module II	**Banking in India since 1990s** • Developments in Commercial banking sector since 1990s • Management of Non-Performing Assets (NPAs) • Capital Adequacy Norms - Basel Accord III • Monetary policy of the RBI • Transmission Channels of Monetary policy.	9
Module III	**Money and Capital Markets in India** • Money Market: Features and Components • Reforms in the money market • Capital Market: Structure of the Indian Capital Market • Recent Developments in the Capital Market • Interlink between Money Market and Capital Market • Overview of Debt Market in India	9
Module IV	**Non-Banking sector of the Financial System** • Non-Bank Finance Companies (NBFCs) in India and their progress • Developments in India's Insurance sector • Progress of Mutual Funds industry in India • Credit Rating Agencies in India	9

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

- The department faculty and students will undertake a study visit to NSE / BSE / Mutual Fund / Insurance Company / Broking firm with the aim of understanding financial markets.

Suggested Readings:

Basic Reference :

1. Pathak, Bharati (2008): The Indian Financial System –Markets, Institutions, and Services, (2nd Edition), Pearson Education, New Delhi, Ch 1 Mod I, Ch 13 & 14 Mod II, Ch 4,5,6,8,10 Mod III, Ch 13,15,16,19 Mod IV

Additional References :

2. Bhole, L. M. (2008): Financial Institutions and Markets, Growth and Innovation, Tata McGraw Hill, New Delhi, Ch 6 Mod II
3. Khan, M.Y. (2007): Financial Services, Tata McGraw Hill, New Delhi
4. Reserve Bank of India (various issues) Report on Currency and Finance, RBI, Mumbai
5. Rakesh Mohan & Partha Ray (2017), Indian Financial Sector: Structure, Trends & Turns; IMF Working Paper (WP/17/7). (https://www.imf.org > Issues > 2017/01/20)

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Preamble

A plethora of data has emerged at an exponential rate and it is the description, interpretation and understanding of these data and drawing of accurate conclusions that is imperative for a student of Economics. The aim of this paper is to provide students with the mathematical and statistical skills and understanding needed for 'knowing why' and 'when' to apply these techniques.

Program: B.A. (2021-22)				**Semester: VI**	
Course: MATHEMATICAL AND STATISTICAL TECHNIQUES FOR ECONOMIC ANALYSIS				**Course Code: UAMAECO607**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 25)**	**Semester End Examinations (SEE) (Marks- 75** in Question Paper)
04	-	-	04	25	75

Learning Objectives:

To develop an understanding of the application of mathematical and statistical tools for economic analysis and forecasting.

Course Outcomes:

CO1: understand the basic mathematical and statistical techniques of economic analysis.

CO2: comprehend the economic applications of advanced calculus such as partial derivatives and integration.

CO3: apply time series analysis for economic forecasting of trends and measurement of seasonal variations.

CO4: use vital statistics for basic demographic analysis.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Partial derivatives	12
II	Integral Calculus	12
III	Times Series Analysis	12
IV	Vital Statistics	12
	Total	48

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Unit	Topic	No. of Hours/Credits
Module I	**Partial derivatives** • Second order partial derivatives • Optimisation of multivariable functions • Constrained optimisation with Lagrange multiplier • Marginal productivity, Income and Price elasticity of demand • Homogenous production functions (Cobb-Douglas)	**12**
Module II	**Integral Calculus** • Economic applications • Present value of Cash Flows (present value of a sum to be received in future and present value of a stream of future income) • Consumer's and Producer's Surplus • Learning curve • Gini Coefficient	**12**

Module III	**Times Series Analysis**
	• Components of Time Series
	• Methods of Estimating Trend
	  o Graphical Method
	  o Least Squares Method
	  o Moving Averages Method (3,4 and 5 yearly)
	• Measurement of seasonal variations by the Method of Simple Averages
		12

Module IV	**Vital Statistics** • Definition and Uses • Methods of Collection • Fertility Rates (Total Fertility Rate, General Reproduction Rate and Net Reproduction Rate) • Mortality Rates (Crude Death Rate, Specific Death Rate, Infant Mortality Rate and Maternal Mortality Rate)	**12**

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic References :

1. Dowling Edward T; Introduction to Mathematical Economics, Schaum's Outline Series in Economics, Tata McGraw Hill, New Delhi, 2004, Ch 5 & 6 Mod I, Ch 14 & 15 Mod II
2. Sancheti D. C. and V. K. Kapoor; Statistics-Theory, Methods and Applications, S. Chand, New Delhi, Ch 11 Mod III, Ch 23 Mod IV

Additional References :

3. Lerner Joel J and P. Zima; Theory and Problems of Business Mathematics, McGraw Hill, New York, 1986
4. Dowling Edward T; Theory and Problems of Mathematical methods for Business and Economics, McGraw –Hill, 1993
5. Gupta S.P.; Statistical Methods, S. Chand, New Delhi, Mod III and Mod IV
6. Tokunaga Howard. T., Fundamental Statistics for the Social and Behavioural Sciences , Sage Publications, 2015

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Preamble

The objective of this course is to impart a basic understanding of econometrics. The student will be able to appreciate the theoretical basis of the subject. At the same time, it will enhance the student's ability to apply the theoretical techniques to the problems of the real world. Topics like forecasting have been introduced to impart this practical orientation.

Program: B.A. (2021-22)				**Semester: VI**	
Course: INTRODUCTION TO ECONOMETRICS				**Course Code: UAMAECO608**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 25)**	**Semester End Examinations (SEE) (Marks- 75 in Question Paper)**
04	**-**	**-**	**04**	**25**	**75**

Learning Objectives:

To develop an understanding of the application of econometric tools for economic analysis and forecasting.

Course Outcomes:

CO1: well versed with the basic concepts of econometric models and model specification.

CO2: analyze the meaning, detection, measures and consequences of failures of classical assumptions of classical linear regression model such as heteroscedasticity, multi-collinearity and auto-correlation.

CO3: apply various methods of economic forecasting and use of different measures of forecast performance.

CO4: understand the use and application of linear programming problem and transportation problem.

Outline of Syllabus: (per session plan)

Module	Description - Title	No of Hours
I	Econometric Model Specification	12
II	Failure of Classical Assumptions	12
III	Forecasting	12

IV	Linear Programming	12
	Total	48
PRACTICALS		-

Unit	Topic	No. of Hours/Credits
Module I	**Econometric Model Specification** • Identification: Structural and reduced form • Omitted Variables Bias • Ramsey's RESET • Errors in Measurement • Endogeneity and Bias	**12**
Module II	**Failure of Classical Assumptions** • Multi-collinearity : Meaning, Implications and Detection • Auto-correlation : Meaning, Consequences and Durbin-Watson test • Heteroskedasticity : Meaning, Consequences and the Goldfeld - Quandt test	**12**
Module III	**Forecasting** • Forecasting with a) moving averages b) linear trend c) exponential trend- CAGR • Forecasting with linear regression • Measures of forecast performance: Mean Square Error and Root Mean Square Error • Limitations of Econometric forecasts	**12**
Module IV	**Linear Programming** • Linear programming problem • Graphical Solution to LPP • Simplex method: (Initial Basic Solution only) • Transportation Problem (North West Corner Rule and Vogel's Approximation Methods only)	**12**

To develop scientific temper and interest by exposure through industrial visits and study/educational tours is recommended in each semester

Suggested Readings:

Basic Reference :

1. Gujarati Damodar, Basic Econometrics, Ch 13 Mod I, Ch 10,11,12 Mod II, Ch 22 Mod III

Additional References :

2. Gujarati Damodar, Econometrics by Example, McGraw Hill, NewYork
3. Hatekar Neeraj (2009), Econometrics: The First Principles A Friendly Introduction, Mod I
4. Kapoor V. K. (2011), Operations Research Problems & Solutions, Sultan Chand & sons, Ch 1,2,3,4,5 Mod IV
5. Lipschutz (Schaum Series), Theory and Problems of Statistics, Mod IV
6. Jeffrey M. Woolridge, Econometrics, Cengage Learning India Edition, 2009, Mod II
7. Studenmund A.H., Using Econometrics : A Practical Guide, 7th Ed. Pearson

SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (AUTONOMOUS)

Preamble

The main objective of this paper is to strengthen a student's critical thinking and reasoning ability at planning economic research and to enable them to communicate the outcomes of their research effectively. The students will be assigned broad areas of research interests in Economics and will be guided to conduct research using a wide variety of qualitative and quantitative tools. Modules on structure of research, theory, types and methodology of research will be instructed. The learner is then expected to undertake the practice by carrying out a research assignment and presenting it in the form of a research report.

Program: B.A. (2021-22)				**Semester: VI**	
Course: PROJECT				**Course Code: UAMAECO609**	
Teaching Scheme				**Evaluation Scheme**	
Lecture (Hours per week)	**Practical** (Hours per week)	**Tutorial** (Hours per week)	**Credit**	**Continuous Assessment (CA) (Marks - 100)**	**Semester End Examinations (SEE)**
03	**-**	**-**	**3.5**	**100**	**N.A.**

Learning Objectives:

The main objective of this paper is to strengthen a student's critical thinking and reasoning ability at planning and conducting economic research and to enable them to communicate the outcomes of their research effectively.

Course Outcomes:

CO1: well versed with APA style of referencing, especially in text referencing and citations.

CO2: undertake review of literature using plagiarism guidelines.

CO3: formulate a research problem and chart out conceptual framework highlighting the research methodology.

CO4: apply econometric, mathematical and statistical skills imbibed across the entire program.

CO5: document the research findings as per the accepted norms.

- A RESEARCH METHODOLOGY WORKSHOP of three hours will be conducted for students in Semester VI to enable understanding and inculcate skills required for their research project. The topics covered in the sessions will include

- Data Collection and Preparation
- Statistical Inference
- Data Analysis using Excel –
  - I. Correlation
  - II. Hypothesis Testing
  - III. Linear Regression

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