



**ANDHRA PRADESH STATE COUNCIL OF HIGHER
EDUCATION**

**Model Syllabus for 4-Year UG Honours in B.A. (Economics) as Major in
consonance with Curriculum framework w.e.f. AY 2025-26**

COURSE STRUCTURE (for Semester I to VI)

Year	Semester	Course	Title of the Course	No. of Hrs /Week	No. of Credits	
I	I	1	Introduction to Economics	4	4	
		2	Microeconomics	4	4	
	II	3	Macroeconomics	4	4	
		4	Development Economics	4	4	
II	III	5	Economic Thought	4	4	
		6	Statistical Methods for Economics	4	4	
		7	Indian Economy	4	4	
	IV	8	Monetary Economics	4	4	
		9	Andhra Pradesh Economy	4	4	
		10	Public Finance	4	4	
III	V	11	Entrepreneurship and MSMEs	4	4	
		12 A	Inferential Statistics and Software Packages	4	4	
		OR				
		12 B	Financial Planning	4	4	
		13 A	Mathematical Methods for Economics	4	4	
		OR				
		13 B	Insurance Services	4	4	
VI	VI	14 A	Research Methodology	4	4	
		OR				

Year	Semester	Course	Title of the Course	No. of Hrs /Week	No. of Credits
		14 B	Retail and Digital Marketing	4	4
		15 A	Data Analysis and Case Studies	4	4
		OR			
		15 B	Logistics and Supply Chain management	4	4

Note: In the III Year (during the V and VI Semesters), students are required to select a pair of electives from one of the **Two** specified domains. **For example: if set ‘A’ is chosen, courses 12 to 15 to be chosen as 12 A, 13 A, 14 A and 15 A.** To ensure in-depth understanding and skill development in the chosen domain, students must continue with the same domain electives in both the V and VI Semesters.

PROGRAM OUTCOMES

After completion of this program, the student will be able to

1. Understand and apply the concepts of economics in personal and professional life.
2. Acquire the skills required to analyse real world problems using economics and statistical concepts.
3. Have sufficient knowledge to pursue higher education in economics in premier institutions.
4. Aspire for securing a decent public and private sector job in the field of economics, banking, banking and finance, data science and other related fields.

SEMESTER-I

COURSE 1: INTRODUCTION TO ECONOMICS

Theory

Credits: 4

4 hrs/week

Course Objective: To introduce students to the fundamental concepts of economics, key economic issues confronting the Indian and global economies along with career opportunities to the students who choose B.A., Economics Programme as major or minor.

Course Learning Outcomes:

After the completion of this course, the students will be able to

1. Recognize key concepts and the role of economics in decision making at the individual and at the society level to solve central economic problems;
2. Learn major tools to understand functions in economics;
3. Analyse the past and present structure of the Indian economy;
4. Critically evaluate the current trends in the global economy;
5. Judge the academic and career opportunities available for the students of economics.

Unit - 1: Nature and Scope of Economics

- Definitions of Economics: Classical, Neo-classical, Modern; Scope of Economics
- Microeconomics vs. Macroeconomics, Positive and Normative Economics
- Central Problems of an Economy: Scarcity, Choice, and Opportunity Cost, Production Possibility Frontier (PPF)
- Economic Systems: Capitalism, Socialism, Mixed Economy

Unit - 2: Understanding Functions in Economics

- Sets - Types, Operations and Cartesian product
- Definitions of Relations and Functions, their difference
- Linear function - equation (slope, intercept, dependent and independent variable) and graphical representation
- Non Linear functions - Quadratic and Cubic Functions, Rectangular Hyperbola with graphical representation

Unit - 3: Indian Economy – A Basic Orientation

- Structure of the Indian Economy: Primary, Secondary, and Tertiary Sectors and their contribution in terms of GDP and Employment
- Demographic Features and Demographic dividend
- Size and Rank of Indian Economy at the Global level: National Income, PCI - {USD and PPP}, HDI and Poverty
- Challenges of Climate change on Indian Economy

Unit - 4: Recent Developments and Emerging Trends in Economics

- Global tensions, trade wars and challenges to global economy
- Green Economy and Circular economy
- Artificial Intelligence and the Future of Jobs
- Behavioural Economics: Nudges, Bounded Rationality and Choices

Unit - 5: Learning Economics and Career Opportunities

- Scope of Economics in Higher Education, Interdisciplinary Nature: Economics with Data Science, Finance, Environment, etc.
- Introduction to Online Platforms: SWAYAM - NPTEL, RBI website, MITx
- Career Paths: Teaching, Data Analysts, Research, Banking and Finance, Public Policy Making, Entrepreneurship and Development Work
- Competitive Exams and Economics (UPSC - IAS, IES, RBI Grade B, SEBI, NABARD, Bank POs, State Services - Group - I and Group - II etc.)

References:

1. **N. Gregory Mankiw** (2003), *Principles of Economics*, 3rd Ed. , New York: South-Western College Publisher.
2. **Samuelson & William D. Nordhaus** (1998), *Economics*, New York: McGraw-Hill Companies, T.H.E.
3. **S.K. Mishra & V.K. Puri** (2024), *Indian Economy*, 42nd Ed., Mumbai: Himalaya Publishing House.
4. **NCERT Textbooks** – Class XI & XII Economics.
5. **Government Reports** – Annual Economic Surveys, NITI Aayog, RBI publications, A.P. Annual Socio-Economic Surveys.
6. **Online Resources** – SWAYA, M MOOC., Publications.

Suggested activities:

- Unit-1 **Application Focus:** Relevance of economics in daily life **Activity:** Discussion on basic needs vs. wants using real-life examples
- Unit- 2 **Application Focus:** Relations and Functions in the market **Activity:** Instruct the students to observe prices and quantity demanded of the vegetables in the market
- Unit-3 **Application Focus:** Instruct the students to collect data on Indian economy in 1950s and 2020s **Activity:** Group discussion on "How digital economy is changing our lives"
- Unit- 4 **Application Focus:** Comparison of India with G20 and BRICS Countries **Activity:** Discounted Sales, Rating of organisations and market behaviour
- Unit- 5 **Activity:** Expert lecture or alumni talk on "Careers with Economics"

SEMESTER-I

COURSE 2: MICROECONOMICS

Theory

Credits: 4

4 hrs/week

Course Objective: This is the first course in economics intended to learn basic concepts, principles and theories in Microeconomics with a view to understanding the economic behavior of an individual person and firm.

Course Learning Outcomes:

After studying this course, the student shall be able to

1. Explain the Law of Demand, Elasticity of Demand and the behaviour of individual consumer in the market place in terms of Cardinal utility and Ordinal utility theories;
2. Analyse the cost, revenue and production functions in terms of equations and graphs;
3. Understand the functioning of perfectly competitive and monopoly markets;
4. Evaluate the functioning of the realistic markets such as monopolistic competition and Oligopoly.
5. Apply the principle of Marginal Productivity to the determination of the remuneration to the factors of production.

Unit -1: Demand and Utility Analysis

- An Introduction to Microeconomics, its nature and scope
- Law of Demand, Elasticity of Demand: Meaning and Types of Elasticity
- Cardinal Utility : Law of Diminishing Marginal Utility, Law of Equi Marginal Utility
- Ordinal Utility: Meaning, Indifference Curves Properties, Budget Line and MRS
- Consumer's equilibrium using Indifference curves

Unit – 2: Production and Cost Analysis

- Firm: Concept and Objectives; Production and Factors of Production; Cost and Revenue: Total, Average, Marginal and the relationship among them
- Production Function: Meaning and Types; Cobb- Douglas Production Function and its properties
- Law of Variable Proportions; Laws of Returns to Scale
- Supply: Meaning, Factors, Law of Supply, Elasticity of Supply

Unit-3: Perfect Competition and Monopoly

- Market: Concept and Classification
- Perfect Competition: Characteristics, Price and Output Determinations of Firm and Industry
- Monopoly: Characteristics, Price and Output Determinations
- Monopoly - Price Discrimination

Unit - 4: Monopolistic Competition and Oligopoly

- Monopolistic Competition: Characteristics, Costs and Demand curves
- Monopolistic Competition : Equilibriums of the Firm and Group, Selling Costs
- Oligopoly: Kinked Demand Curve, Characteristics of Collusive and Non Collusive Oligopoly
- Real world examples of Monopolistic Competition and Oligopoly

Unit - 5 Theories of Distribution

- Types of Distribution and Marginal Productivity Theory of Distribution
- Rent: Ricardian Theory of Rent, Marshallian Quasi Rent
- Theories of Wage: Subsistence Theory, Modern Theory
- Theories of Interest and Profits: Classical Theory of interest, Innovations Theory of Profit

References:

1. Microeconomic Analysis, Bilingual Textbook, APSCHE
2. H. L. Ahuja, (2004), *Advanced Economic Theory*, New Delhi: S. Chand.
3. A. Koutsoyiannis (2023), *Modern Microeconomics*, 2nd ed. Reprint, London: Macmillan.
4. P. N. Chopra (2018), *Principles of Economics*, Ludhiana: Kalyani Publishers.
5. Telugu Academy Publications on Microeconomics
6. Microeconomics, Dr. Br. Ambedkar Open University Material
7. Microeconomics, IGNOU Material

Suggested Activities:

- Unit-1: Studying the behaviour of people in the market place while buying Good/Services and making presentations in the class room.
- Unit-2: Identifying the applications of Indifference curves in real world situation
- Unit-3: Giving Assignment on any production function or traditional or modern theories of costs
- Unit-4:Arranging field visit to any nearby vegetable Rythu market and submission of a report
- Unit - 5 Seminar on theories of distribution which were studied at intermediate level.

SEMESTER-II

COURSE 3: MACROECONOMICS

Theory

Credits: 4

4 hrs/week

Course Objective: The objective of this course is to impart basic concepts, principles and theories of Macroeconomics to make the student understand the functioning of a macro economy.

Course Learning Outcomes:

After the completion of this course, the students will be able to

1. Explain the circular flow of national income in a macro economy, various concepts of national income and their measurement;
2. Compare and contrast the Classical and Keynes theories of employment and their relevance to the present day economies;
3. Evaluate Keynes' theories of consumption and investment functions and their implications to the economy;
4. Analyse causes and the measures to control inflation and trade cycles in the economy;
5. Evaluate the structure and components of balance of payments, exchange rate systems and capital flows to achieve internal and external stability.

Unit - 1: Introduction to Macroeconomics and National Income

- Macroeconomics: Definition, Scope and Importance; Macroeconomic variables: Stock and Flow
- Circular Flow of Income: Two, Three and Four Sector economies
- National Income: Definition, Concepts, Importance
- Measurement of National Income and Difficulties

Unit -2: Theories of Employment

- Classical Theory of Employment, Say's Law of Market,
- Pigou's Wage-Price Flexibility,
- Keynesian Theory of Employment: Assumption, Concepts and Model,
- Classical theory vs Keynesian theory of employment.

Unit -3: Consumption and Investment

- Consumption: Factors, Consumption Function,
- Keynes' Psychological Law of Consumption, life cycle hypothesis
- Investment: Types, Factors, Investment Function, Marginal Efficiency of Capital,
- Working of Multiplier and Accelerator

Unit - 4: Inflation and Trade Cycles

- Inflation: Meaning and types
- Measurement - Consumer Price Index and Wholesale Price Index
- Causes, Consequences and Controlling of Inflation
- Trade Cycles: Phases, Causes and Controlling Measures

Unit- 5: Globalization, External Sector and Macroeconomic Linkages

- Role of Foreign Trade and Capital flows in Domestic Economy
- Exchange rate systems: Fixed, Flexible, and Managed Floating
- Balance of Payments: Structure, current account, capital account and their significance
- Bilateral, Multilateral Trade Agreements and WTO

References:

1. Macroeconomic Analysis, Bilingual Textbook, APSCHE
2. H. L. Ahuja (2004), *Advanced Economic Theory*, New Delhi: S. Chand.
3. P. N. Chopra (2014), *Macroeconomics*, Ludhiana: Kalyani Publishers.
4. D. M. Mithani (1990), *Macro Economic Analysis and Policy*, New Delhi: Himalaya Publications.
5. Telugu Academy Publications on Macroeconomics
6. Macroeconomics, Dr. Br. Ambedkar Open University Material
7. Macroeconomics, IGNOU Material

Suggested Activities:

- Unit-1. Practical Exercise on national income measurement
- Unit-2. Group discussion on relevance of Classical and Keynesian employment theories to current economic situation
- Unit-3. Seminar presentations on the implications of Keynes' Psychological Law of Consumption
- Unit-4. Assignment on current measures to control inflation
- Unit-5. Quiz on sectoral and regional flow of FDI in India and debate on monetary vs fiscal policy

SEMESTER-II

COURSE 4: DEVELOPMENT ECONOMICS

Theory

Credits: 4

4 hrs/week

Course Objective: This course is designed to learn about basic concepts, principles and theories in development economics and apply them to analyse the current issues in the economy

Course Learning Outcomes:

After the completion of this course, the students will be able to

1. Explain concepts of economic growth and development and their measurement;
2. Analyse the developmental issues such as poverty, unemployment, inequality and sustainable development and suggest measures;
3. Comprehend various standard theories of growth and development;
4. Examine and suggest various developmental strategies suitable to developing countries;
5. Evaluate various contemporary development issues at international and national levels and suggest appropriate suggestions to solve them.

Unit - 1: Introduction to Economic Growth and Development

- Economic Growth and Development: Meaning, Differences, Factors and Obstacles
- Indicators of Economic Development - GNI Per capita Income, Human Development Index, Gender Development Index, Happiness Index, etc
- Kuznets' Characteristics of Modern Economic Growth
- World Bank and IMF Classification of Countries based on level of Development

Unit 2: Developmental Issues

- Poverty: Meaning, Types, Causes and Solutions, Multi Dimensional Poverty Index
- Unemployment: Meaning, Types, Measuring Unemployment
- Inequalities: Meaning and Measurement - Gini Coefficient, Lorenz Curve and Kuznet's Curve
- Sustainable Development, Sustainable Development Goals

Unit-3: Theories of Growth and Development

- Classical Theory of Development
- Marxian Theory of Development
- Neo-Classical Models of Economic Growth: Harrod-Domar Model, Solow Model
- Rostow's Stages of Economic Growth

Unit – 4: Strategies of Economic Development

- Balanced and Unbalanced Growth Strategies
- Big Push Strategy, Nehru-Mahalanobis Strategy
- Export Promotion and Import Substitution Strategy
- Human Capital – Sen’s Capability Approach

Unit - 5: Contemporary issues in Economic Development

- Inclusive growth, Gender Disparities
- Technological disruption and Digital Divide
- Urbanization and Migration
- Globalization and its Challenges

References:

- Ray, D. (2009), *Development Economics*, New York: Princeton University Press.
- Todaro M. P. and Stephen, C., Smith (2014), *Economic Development*, London: Pearson, 12 Ed..
- M. L. Jhingan and B. L. Jhingan (2024), *The Economics of Development and Planning*, New Delhi: Vrinda Publications.
- Hayami and Godo: (2005), *Development Economics*, London: Oxford Publication.
- Sen, A., (1999), *Development as Freedom*, London: Oxford University Press.
- Thirlwall A. P., (2005), *Growth and Development*, Palgrave Macmillan; 8th Edition.
- Chenery, Hollis and T. N. Srinivasan, (1998), *Handbook of Development Economics*, Elsevier.
- Basu, Kaushik (2000), *Analytical Development Economics: The Less developed Economy: Revisited*, Oxford University Press, India.
- Development Economics, Telugu Academy
- Open Source Online Materials & Videos: IGNOU, e-PG Pathasala, SWAYAM, Khan Academy etc.

Suggested Activities:

- Unit-1. Group discussions on factors of economic growth and development
- Unit-2. Assignments on developmental issues like poverty, unemployment and their programs
- Unit-3. Prepare comparative flow charts of various theories of economic growth and development
- Unit-4. Give Project on application of any theory of economic growth or development to the Current economic Problem
- Unit-5. Seminar on contemporary issues on economic development role at state or local levels

SEMESTER-III

COURSE 5: ECONOMIC THOUGHT

Theory

Credits: 4

4 hrs/week

Course Objective: To introduce students to the evolution of economic thought by exploring key ideas, major schools, and influential thinkers—both global and Indian—with a focus on their relevance to contemporary economic understanding and policy.

Course Learning Outcomes:

- After the completion of this course, the students will be able to
- Critically compare early economic schools and evaluate their relevance to historical and present-day economic issues.
- Explain key ideas of modern economic theories and assess their role in shaping macroeconomic policies.
- Apply institutional and behavioural economic concepts to understand real-world decision-making and governance.
- Interpret indigenous and colonial economic ideas in relation to justice, ethics, and anti-colonial critique.
- Evaluate modern Indian thinkers' contributions to development, welfare, and economic reforms.

Unit 1: Foundations of Economic Thought

- Mercantilism and Physiocracy: Core ideas and critique
- Classical Economic thought: Adam Smith and Ricardo Comparison
- Bentham: Utilitarianism and Critique
- Karl Marx: Communism and its Critique

Unit 2: Modern Economic Schools

- Neo- Classical and Marginal revolution
- Keynesian School
- New-Classical Economists: rational expectations model
- Neo-Keynesian School

Unit 3: Institutional and Behavioural Approaches

- Institutional Economics : Gunnar Myrdal, John Rawls
- New Institutional 1 : Ronald Coase, Frederich Hayek
- New Institutional School 2: Kenneth Arrow, Elinor Ostrom & Oliver E. Williamson
- Behavioural Economics: Herbert Simon (bounded rationality), Richard Thaler (nudges)

Unit 4: Indian Economic Thought – Early and Colonial Period

- Buddhist Economics: Principles, Relevance, and the Ideas of E.F. Schumacher
- Tiruvalluvar: Ethical wealth, agriculture, just rule
- Kautilya: *Arthashastra*, economic governance, statecraft
- Dadabhai Naoroji: Drain Theory and R.C. Dutt: Critique of colonial economic exploitation

Unit 5: Indian Economic Thought – Modern and Contemporary Era

- Mahatma Gandhi: Trusteeship, village economy
- B.R. Ambedkar: Social justice and the economy
- Amartya Sen: Capabilities approach
- Rao–Manmohan Singh liberalization: 1991 Reforms

References:

1. Lokanathan (2018): History of Economic Thought, S.Chand& Co Ltd, New Delhi
2. Hajela, T.N: History of Economic Thought, Ane's Books Pvt Ltd., New Delhi
3. R.R. Paul: History of Economic Thought, Kalyani Publishers, New Delhi
4. Gide and Rist : History of Economic Doctrines, Digital Library of India, 2015.274711
5. Roll. E. (1973) : A history of Economic Thoughts, Father, London.
6. Ghosh B.N. And Ghosh Roma. A Short History of Economic Doctrines.
7. Lange, O., "Political Economy", Vol. 1, 1963
8. Open Source Online Materials & Videos: IGNOU, e-PG Pathasala, SWAYM, Khan Academy etc.

Suggested Activities:

- Unit-1: Student Seminar on "Comparing Mercantilism vs Classical Economics
- Unit-2: Group discussions on different schools of economic thought and their relevance today
- Unit-3: Comparative Chart – Institutional vs Behaviourist Contributions
- Unit-4: Poster Presentation – "Gandhi vs Ambedkar: Contrasting Economic Visions"
- Unit-5: Project Work – "Case Study on Indian Political Economy in the Post-Reform Era"

SEMESTER-III

COURSE 6: STATISTICAL METHODS FOR ECONOMICS

Theory

Credits: 4

4 hrs/week

Course Objective: The objective of this course is to make the students learn basics of statistics with a view to applying them to day-to-day applications in economics.

Course Learning Outcomes:

At the end of the course, the student is expected to demonstrate the following skills

1. Understands the nature of statistics and able to collect data using questionnaire;
2. Draws appropriate diagrams and graphs for presentation of data effectively;
3. Calculates and analyses Averages and Dispersions for the given data and interpret them meaningfully;
4. Explains the uses of correlation, simple regression and time series in economic analysis.
5. Calculates index numbers and interprets them correctly.

Unit – 1: Introduction to Statistics

- Nature and Definition of Statistics, scope, importance and limitations of Statistics
- Data: Meaning, Types of data - Primary and Secondary data, and their sources
- Census and Sample - Merits and Demerits
- Schedule and Questionnaire

Unit – 2: Diagrammatic Analysis

- Frequency distribution - Meaning, Types, Tabulation,
- Histogram, Frequency Polygon, Cumulative Frequency Curves
- Graphical presentation of data: Line graph, Bar Diagrams, Pie Charts
- MS. Excel for Diagrammatic Analysis

Unit – 3: Measures of Central Tendency and Dispersion

- Measures of Central Tendency and Dispersion - Meaning and Importance
- Averages: Arithmetic Mean, Median, Mode
- Dispersion: Range, Mean Deviation
- Standard Deviation, Coefficient of Variation with numerical examples

Unit – 4: Correlation, Regression and Time Series

- Correlation – Types and Measurement
- Simple Regression Model
- Time Series: Definition and Components
- Measurement of Time Series: Moving Averages

Unit - 5: Index Numbers

- Index Numbers: Concepts of Price and Quantity Relatives
- Laspeyres's, Paasche's and Fisher's Ideal Index Numbers
- Uses and Limitations of Index Numbers

References:

1. B. R. Bhat, T. Srivenkataramana and K.S. Madhava Rao (1996): *Statistics: A Beginner's Text*, Vol. I, New Age International (P) Ltd
2. Goon A.M, Gupta M.K., Das Gupta B. (1991), *Fundamentals of Statistics*, Vol. I, World Press, Calcutta.
3. M. R. Spiegel (1989): *Schaum's Outline of Theory and Problems in Statistics*, Schaum's Outline Series.
4. S.P. Gupta (1985), *Statistical Methods*, S. Chand & Co, 1985
5. K.V.S Sarma (2003), *Statistics Made Simple*, Second edition, New Delhi: PHI Learning
6. Telugu Academy Book, Parimanathmaka Paddathulu (For B.A.).

Suggested Activities:

- Unit-1. Assignments of the application of various statistical methods
- Unit-2. Student Seminar on themes requiring usage of tables, diagrams, statistical analysis and interpretation
- Unit-3. Group project work for collection of data on locally relevant economic problems
- Unit-4. Exercise on calculation of correlation and regression using Excel.
- Unit-5. Chart Preparation on formulas of different index index numbers

SEMESTER-III

COURSE 7: INDIAN ECONOMY

Theory

Credits: 4

4 hrs/week

Course Objective: To provide basic understanding on the changing structure of the Indian economy and to analyse various issues and problems confronting the Indian economy

Course Learning Outcomes:

After the completion of this course, the students will be able to

1. Explain the basic characteristics, structural changes, planning and economic reforms in Indian economy;
2. Analyse the status of agriculture and rural areas in India and current programmes being implemented for their development;
3. Appraise the progress made in industrial and infrastructure development in India;
4. Examine the role of the service sector and emerging issues in services sector and labour market;
5. Evaluate the emerging trends in India's public finance and external sector.

Unit 1: Features of Indian Economy

- Economic Development of India since Independence
- Population: Growth trends, demographic dividend, National Population Policy
- Achievements and failures of five year plans
- Economic Reforms: LPG model – Liberalisation, Privatisation, Globalisation, NITI Aayog

Unit 2: Agriculture and Rural Development

- Role of agriculture in Indian economy – Trends in output and productivity
- Land reforms and green revolution – success and limitations
- Agricultural pricing, MSP, e-NAM
- Rural development programs: NRLM, PM-KISAN, PMGSY, MGNREGS

Unit III: Industry and Infrastructure

- New Industrial Policy - 1991, Privatisation and Disinvestment
- Role and performance of public sector and private sector
- Infrastructure: Power, transport, communication
- Industrial corridors, Make in India, PLI scheme, Gati Shakti

Unit IV: Services Sector, Employment and Labour

- Growth and composition of services sector in India
- Employment: Types, Trends in labour force participation rates,
- Government employment schemes: PMEGP, Skill India, National Career Service
- Reforms on Labour Code, Code on Wages, Gig workers and their issues

Unit V: Budgetary Trends and India's External Sector

- Fiscal policy: Trends in revenue, expenditure, and deficits
- State's Fiscal Health Index
- India's foreign trade – Composition and Direction
- India's Balance of Payments, Exchange rate trends, FDI, FPI

References:

1. Dhingra, I.C.(2014), *Indian Economy*, New Delhi: Sultan Chand & Co.
2. Gaurav Datt and Ashwani Mahajan (2024), *Datt and Sundharam's Indian Economy*, New Delhi: Sultan Chand & Co.
3. G. M. Meier (2005), *Leading Issues in Economic Development*, New York: Oxford University Press.
4. P. K. Dhar (2018), *Indian Economy: Its Growing Dimensions*, Ludhiana: Kalyani Publishers.
5. Reserve Bank of India, *Handbook of Statistics on Indian Economy* (Latest).
6. S. K. Misra & V. K. Puri (2015), *Indian Economy*, Mumbai: Himalaya Publishing House.
7. Indian Economy for Competitive Examinations by Telugu Academy, 2024
8. Government of India, *Annual Economic Surveys*

Suggested Activities:

- Unit-1. Project on how demographic trends in certain parts of India lead to poverty, unemployment, labour migration, and urbanization.
- Unit-2. Student seminars on Indian agriculture by analyzing key crops, cropping patterns.
- Unit-3. Workshop relating to infrastructure and industrial development in India.
- Unit-4. Group Discussion on increasing importance of the Service sector in the Indian economy.
- Unit-5. Conduct competitions for suggesting innovative ideas for India's development towards the vision, Vikasith Bharath - 2047.

SEMESTER-IV

COURSE 8: MONETARY ECONOMICS

Theory

Credits: 4

4 hrs/week

Course Objective: To provide students with a comprehensive understanding of the theoretical and practical aspects of money, banking, and monetary policy in the modern economy, including trends in the digitalization of the economy.

Course Learning Outcomes:

After successful completion of this course, the students will be able to

1. Understand the functions of money and different concepts of money and digital currencies;
2. Explain classical and modern theories of demand for money and their implications;
3. Describe the functions of Commercial banks, NBFCs, and RBI
4. Assess goals of monetary policy and inflation targeting
5. Evaluate the latest developments in the banking sector including net-banking and mobile banking.

Unit - 1: Money – Functions, and Modern Forms

- Money: Definitions, Types and Functions
- Measures of Money Supply: M_1 , M_2 , M_3 , M_4 – RBI definitions
- High Powered Money and Money Multiplier
- Recent Developments: Digital Currency and CBDC (Central Bank Digital Currency – e₹)

Unit - 2: Theories of Demand and Supply of Money

- Quantity Theory : Fisher and Cambridge, Classical Dichotomy
- Keynesian Liquidity Preference Theory
- Post-Keynesian Theories: Tobin and Friedman
- Philips Curve, Rational Expectations

Unit - 3: Financial Markets and Institutions

- Financial Market - Money Market and Capital Market
- Functions of Commercial Banks, Credit Creation Process
- Non Banking Financial Institutions - Role and regulations
- Recent Reforms in Banking Sector - Management of NPA, Mergers, BASEL Norms

Unit - 4: Monetary Policy, Tools and Effectiveness

- Functions of RBI
- Monetary Policy: Meaning, Objectives and Instruments of Monetary Policy: Quantitative and Qualitative
- Transmission Mechanism of Monetary Policy
- Inflation Targeting and Flexible Inflation Targeting (FIT) Framework

Unit - 5: Emerging Trends in Money and Banking

- Cryptocurrencies: Evolution, Features and Challenges.
- Fintech: Blockchain Technology, DeFi
- Financial Innovations: Crowd Funding, Net - banking, Mobile banking
- Digital Finance and Issues in Cybersecurity

References:

1. Prasad, E. S., & Thorne, S. R. (2021). *The Future of Money*. Unabridged. Tantor Media, Inc.
2. **Suraj B. Gupta (2001), *Monetary Economics: Institutions, Theory and Policy*, New Delhi: S. Chand & Company.**
3. **R. Dornbusch and S. Fischer (2010), *Macroeconomics*, New York: McGraw Hills.**
4. **M. L. Jhingan (2013), *Money, Banking, International Trade & Public Finance, 8th Edition*, New Delhi: Vrinda Publications.**
5. Mishkin, F.S. (2006), *The Economics of Money, Banking, and Financial Markets*. London: Pearson-Addison-Wesley Publishers.
6. **RBI Reports** – Annual Report, Financial Stability Report, Digital Payments Report
7. Articles from **BIS, IMF, and World Bank** on digital banking and monetary policy

Suggested Activities:

- Unit-1. Browse RBI's website and submit a small report on any two recent notifications or updates about money supply or digital currency.
- Unit-2. Draw and interpret: Liquidity preference curve, Phillips Curve, Rational expectations-adjusted Phillips Curve
- Unit-3. Visit a local commercial bank or cooperative bank. Prepare a brief report on credit creation, customer services, and digital operations.
- Unit-4. Create visual posters explaining quantitative vs qualitative tools monetary policy with real-world examples.
- Unit-5. Conduct a quiz on common cybersecurity threats (phishing, ransomware). Design an awareness campaign (posters or reels) for safe digital banking.

SEMESTER-IV

COURSE 9: ANDHRA PRADESH ECONOMY

Theory

Credits: 4

4 hrs/week

Course Objective: This course aims to provide an overview of the economic structure of Andhra Pradesh focusing on its policies towards the development of agricultural, industrial, service sectors as well as welfare of the people to achieve the vision of Swarna Andhra 2047.

Course Learning Outcomes:

After successful completion of this course, the students will be able to

1. Understand the key demographic and developmental indicators of Andhra Pradesh;
2. Analyse the pattern of land use, irrigation systems and agriculture reforms in Andhra Pradesh;
3. Assess the progress made in the development of industries and infrastructure in the state;
4. Evaluate the progress made in the growth of service sector, e-governance and trends in labor market in Andhra Pradesh;
5. Suggest efficient budgetary and welfare policies to enhance the living standards of the people in Andhra Pradesh.

Unit 1: Economic Profile of Andhra Pradesh

- Features of Andhra Pradesh Economy, Impact of Bifurcation
- State Domestic Product (SDP): Sectoral contribution and Trends, Per capita Income
- Human Development Indicators: Literacy, Health, Gender, HDI
- Swarna Andhra 2047: Targets and Guiding principles

Unit 2: Agriculture and Allied Sectors

- Land Use and Cropping Pattern: Major crops, GI Crops, Cropping pattern
- Irrigation and Water Resource Management: Sources of Irrigation, Inter linking of rivers
- Agriculture markets: Agricultural Produce Market committees (APMCs), Rythu bazars
- Contribution of Allied Sectors - Forestry, Livestock, Fisheries, Horticulture, Sericulture and Food Processing Industry

Unit 3: Industry and Infrastructure

- New Industrial Policy of Andhra Pradesh
- SEZs and Industrial Corridors: Visakhapatnam-Chennai Industrial Corridor, APIIC
- Key Findings of Andhra Pradesh Annual Survey of Industries
- Infrastructure facilities - Energy, Road Network, Airports and Ports

Unit 4: Services Sector and Employment

- Composition and Growth of Services Sector in Andhra Pradesh
- AP Tourism - Opportunities and Challenges
- IT Sector - initiatives - Data Centers, Quantum Valley, E-governance initiatives in Andhra Pradesh
- Labour Market Issues: Nature of employment, Migration trends

Unit 5: Public Finance and Welfare Schemes

- State Budget and Fiscal Policy: Revenue, Expenditure, Fiscal deficit, Public Debt
- Taxation and Resource Mobilization: GST, State Taxes,
- State share in central taxes
- Flagship welfare programs of Andhra Pradesh

References:

1. Telugu Akademy (2023) *Andhra Pradesh economy*. Hyderabad:Telugu Akademy.
2. Planning Department (2025) *Socioeconomic Survey of Andhra Pradesh 2024-25*, Government of Andhra Pradesh.

Websites:

1. Andhra Pradesh Directorate of Economics and Statistics - <https://des.ap.gov.in/MainPage.do>
2. AP Socioeconomic Survey - <https://apfinance.gov.in/socio.html>

Suggested Activity:

- Unit - 1. Seminar on economic profile of Andhra Pradesh and progress towards the Swarna Andhra 2047 vision through project-based learning.
- Unit - 2. Visit a Local Farm for hands-on experience and insights into agricultural Activities.
- Unit - 3. Visit a Local Farm for hands-on experience and insights into industries and propose investment strategies for the industrial sector in Andhra Pradesh.
- Unit - 4. Organize debate on Social Infrastructure services available in Andhra Pradesh
- Unit - 5. Engage in a mock budgeting exercise to understand public finance and development priorities in Andhra Pradesh.

SEMESTER-IV

COURSE 10: PUBLIC FINANCE

Theory

Credits: 4

4 hrs/week

Course Objective: This course aims to provide an understanding of Public Finance principles, theories, and policies, enabling students to analyse and evaluate issues in government revenue, expenditure and debt management.

Course Learning Outcomes:

After the completion of this course, the students will be able to

1. Explain the basic concepts and principle of public finance;
2. Discuss various sources of public revenue, different theories of taxation, tax systems and incidence of taxation;
3. Analyse various principles, theories, practices of public expenditure;
4. Evaluate the concepts and effects of public debt & deficits and the FRBM Act in India;
5. Illustrate the efficacy of fiscal policy, fiscal federalism and the role of the Finance Commissions in India.

Unit 1: Introduction to Public Finance and Market Failure

- Meaning, Nature, Scope, Importance of Public Finance; Public vs Private Finance
- Principle of Maximum Social Advantage
- Types of Goods: Private, Public, Merit, Club Goods
- Problems of Market Failure, Externalities and Free Riding and Solutions.

Unit 2: Public Revenue

- Sources of Revenue: Tax and Non-tax; Cannons of Taxation
- Theories of Taxation: Benefit Theory, Ability to Pay Theory
- Tax Systems: Progressive, Proportional, Regressive; Types of Taxes: Direct and Indirect
- Incidence and Effects of Taxation

Unit 3: Public Expenditure

- Principles of Public Expenditure (PE); Classification and Effects of PE
- Theories of PE: Wagner's Law, Peacock-Wiseman
- Determinants of PE; Criteria for Public Investment
- Crowding in effect and crowding out effect of public expenditure

Unit 4: Public Debt and Budget

- Public Debt: Meaning, Types, Sources

- Public Debt Management
- Budget: Meaning, Types, Components, Types of Deficits
- Fiscal Discipline and Consolidation, FRBM Act

Unit 5: Fiscal Policy and Fiscal Federalism

- Fiscal Policy: Meaning, Objectives and Mechanism
- Fiscal Federalism - Concept of Vertical and Horizontal Devolution
- Fiscal Federalism in India: Issues and Challenges
- Recent Finance Commission: Objectives and Recommendations

References:

1. Musgrave, R. A. & Musgrave, P. B. (2004), *Public Finance in Theory and Practice*. Fifth edition., TATA McGraw-Hill
2. B.P. Tyagi (2006), *Public Finance*, Meerut: Jai Prakash Nath Co.
3. Bhatia H.L.(1984) *Public Finance*, Ghaziabad: Vikas Publishing House Pvt.Ltd.
4. Dalton, H.,(2009) *Principles of Public Finance*, First edition., Routledge..
5. Stiglitz, J. E (2000), *Economics of the Public Sector*. W W Norton
6. Rangarajan, C. and D. K. Srivastava (2011), *Federalism and Fiscal Transfers in India*. New Delhi: Oxford University Press.
7. Open Source Online Materials & Videos: IGNOU, e-PG Pathasala, Economic Survey, SWAYM, Khan Academy etc.

Suggested Activity:

- Unit 1. Create a presentation highlighting the key principles of public finance.
- Unit 2. Organize a debate on the advantages and disadvantages of different tax Systems.
- Unit 3. Develop a budget proposal for a hypothetical government agency.
- Unit 4. Present a case study on the implementation of the Fiscal Responsibility and Budget Management Act in India
- Unit 5. Organize a panel discussion with experts in public finance to discuss the effectiveness of fiscal policy instruments in achieving economic stability and growth.

SEMESTER-V

COURSE 11: ENTREPRENEURSHIP AND MSMEs

Theory

Credits: 4

4 hrs/week

Course Objective: This course aims to equip students with the essential knowledge and skills to become successful entrepreneurs covering the entire journey from ideating a business concept to validating its viability and successfully launching a venture.

Course Learning Outcomes:

After successful completion of this course, the students will be able to

1. Explain basic concepts, types, theories of entrepreneurship, and women entrepreneurship;
2. Apply SCAMPER techniques to identify ideas and create a simple business plan for rural/urban ventures;
3. Evaluate the opportunities and the feasibility of becoming an entrepreneur within the umbrella of MSMEs;
4. Design a viable financial and legal plan to start a business in India.
5. Identify major programmes and schemes with government support for undertaking a start up venture;

Unit-1: Introduction to Entrepreneurship

- Concept and Importance of Entrepreneurship
- Theories of Entrepreneurship: Innovations, X-Efficiency, Risk Bearing
- Types of Entrepreneurship: Eco-preneurship, Social, Digital, and Tech-based
- Women Entrepreneurship: Importance, Role in Inclusive Growth, Opportunities, and Challenges

Unit-2: Entrepreneurship and Business Planning

- Entrepreneurial Ecosystem: Elements, Issues, and Support Mechanisms
- Opportunity Identification Techniques: SCAMPER, SWOT Analysis
- Business Planning and Business Model Canvas
- Entrepreneurial Opportunities in Rural and Urban India

Unit 3: MSMEs and Emerging Opportunities

- MSMEs in India: Features, Classification, and Role in Economic Development
- Cluster Development Approach and Support for MSMEs
- Challenges Faced by MSMEs and Policy Responses
- Emerging Sectors in Entrepreneurship: Organic Farming, Food Processing, Sanitary Products, Handicrafts, Tourism, and Logistics

Unit- 4: Financing and Marketing for Entrepreneurs

- Financial Planning: Estimating Capital Needs and Budgeting
- Sources of Finance: Banks, SIDBI, MUDRA, and Alternative Finance - Crowdfunding (kickstarter), Venture Capital
- Loan Application Process and Project Report Preparation
- Marketing for Startups: Market Research, Branding, Promotion, and Digital Strategies (Social Media, SEO, Influencer Marketing)

Unit 5: Institutional Support and Case Studies

- Institutional Support for Entrepreneurship: NSDC, MSME-DI, Incubators, Accelerators
- Key Government Schemes: PMEGP, STARTUP INDIA, STANDUP INDIA, UDYAM Registration
- Legal and Regulatory Framework: Registration, Taxation, Labour Laws, Environmental Compliance
- Case Studies: Success Stories and Failures of Local/Regional Relevance

References:

1. **Hisrich, R. D., Peters, M. P., & Shepherd, D. A.** (2020), *Entrepreneurship*, 11th Edition, McGraw Hill Education
2. **Desai, Vasant** (2018), *Dynamics of Entrepreneurial Development and Management*, Himalaya Publishing House
3. **Gupta, C.B. & Srinivasan, N.P.** (2021), *Entrepreneurship Development in India*, Sultan Chand & Sons
4. **Arora, Renu & Sood, S.K.** (2019), *Entrepreneurship Development*, Kalyani Publishers
5. **Kumar, S. Anil, Poornima, S. C., Abraham, M. K., & Jayashree, K.** (2023). *Entrepreneurship Development* (2nd ed.). New Delhi: New Age International Publishers.
6. **Gordona, E and N. Natarajan** (2017), *Entrepreneurship Development*, Mumbai: Himalaya Publishing House Pvt Ltd

Websites:

- Startup India Portal – <https://www.startupindia.gov.in>
- MUDRA Yojana – <https://www.mudra.org.in>
- SIDBI (Small Industries Development Bank of India) – <https://www.sidbi.in>
- NABARD – <https://www.nabard.org>
- T-Hub & Atal Innovation Mission – <https://www.t-hub.co>, <https://aim.gov.in> Innovative Learning Resources
- NPTEL Course: “Entrepreneurship” – <https://nptel.ac.in/courses/110/107/110107094>
- SWAYAM Entrepreneurship Courses – <https://swayam.gov.in>.

Videos and Podcasts:

- YouTube Channels : ET Startup Central, The Ken / YourStory , Shark Tanks
- Digital Market Research tools - google trends, social blade
- Business Simulation Tools
 - Canvanizer – For Business Model Canvas: <https://canvanizer.com>
 - BPlan Builder – Business plan generator tools.
- Entrepreneurship Podcasts
- Startup India Podcasts – Insights into schemes, funding, and real ventures,

Suggested Activities:

- Unit 1: Role-play different types of entrepreneurs (social, digital, eco, women) to understand their roles, challenges, and contributions. Field trip to local industry and report submission.
- Unit 2: Apply the SCAMPER technique to redesign a common product and pitch a new business ideas based on innovation.
- Unit 3: Conduct a SWOT analysis of a local MSME to identify its strengths, weaknesses, opportunities, and threats.
- Unit 4: Design a basic digital marketing plan for a startup idea using social media platforms and branding strategies.
- Unit 5: Create a startup proposal using a government scheme (e.g., Startup India) outlining eligibility, benefits, and business potential.

SEMESTER-V

COURSE 12A: INFERENCE STATISTICS AND SOFTWARE PACKAGES

Theory

Credits: 4

4 hrs/week

Course Objective: This course provides theoretical knowledge and practical skills about various inferential statistics such as probabilities, test of significance, multiple regression and also skill for using software like MS Excel and SPSS for data analysis.

Course Learning Outcomes:

After the completion of this course, the students will be able to

1. Understand the concept and theory of probability;
2. Analyse and apply the different probability distributions;
3. Demonstrate the skills on various tests of significance;
4. Learn and use of multiple regression model in economics;
5. Use Excel sheets and SPSS package to analyse the data and derive the results.

Unit 1: Concept and Theories of Probability

- Concept and Definitions of Probability
- Approaches to Probability: Mathematical, Statistical, and Axiomatic
- Theorems on Probability: Addition and Multiplication (without proofs).

Unit 2: Theoretical Probability Distributions (Without proofs)

- Binomial Distribution: Constants, Properties and Applications
- Poisson Distribution: Constants, Properties and Applications
- Normal Distribution: Constants, Properties and Applications
- Standard Normal Distribution: Properties and Applications

Unit 3: Test of Significance - Large and Small Sample Tests

- Steps involved in Testing of Hypotheses, Testing the difference between Means and Proportions
- Large Sample or Z-Test, Small Sample Tests, Difference between them
- Applications of Student's t-test, χ^2 test, F-test
- One way and Two way ANOVA

Unit 4: Linear Multiple Regression Model

- Three Variable Linear Multiple Regression Model: Notation, Assumptions
- Estimation of Partial Regression Coefficients – Interpretation of Regression coefficients
- Testing the coefficients: t-test, p- value
- Coefficient of Determination: R^2 and adjusted R^2

Unit 5: Excel and SPSS for Data Analysis

- Excel: Worksheet, Creating Tables, Graphs and Charts
- Mathematical and Statistical Functions in Excel and Data Analysis Pack: Descriptive Statistics, Correlation and Regression
- SPSS: Introduction, Opening Excel files in SPSS, Analysis Tools: Descriptive Statistics
- Estimation of Regression Coefficients using SPSS and their interpretation.

References:

1. **S. C. Gupta**, (1982) *Fundamentals of Statistics*, Bombay: Himalaya Publishing House
2. **S. P. Gupta**, (2000), *Statistical Methods*, New Delhi: S. Chand & Company
3. **K. V. S. Sharma**, (2010), *Statistics Made Simple, Do it Yourself on PC, second edition*, New Delhi: Prentice Hall of India
4. Telugu Akademi, *Quantitative Methods*
5. B. N. Gupta, (1992), *Statistics Theory and Practice*, Agra: Sahitya Bhavan
6. **Goon A.M., M. K. Gupta and B. Dasgupta**, (1975) *Fundamentals of Statistics*, Vol.1, Calcutta: The World Press, Ltd
7. **Nagar, A.L. and R. K. Das**, (1996), *Basic Statistics*, New Delhi: Oxford University Press
8. **D N Elhance, Veena Elhance & B M Aggarwal**, (2018), *Foundation of Statistics*, New Delhi: Kitab Mahal
9. Relevant web resources suggested by the teacher and college librarian.

Suggested Activities:

- **Mandatory** (Training of students in the related skills by the teacher for a total 10 Hours)
- **For Teacher:** Training of students by teacher in the classroom and in the field for a total of not less than 10 hours on skills and hands on experience like calculation and interpretation normal curve, Z-values, t-test, χ^2 test, F-test, ANOVA, regression results, t, p and R^2 values using Excel and/or SPSS. The expertise of practicing persons can be utilized for this purpose.
- **For Student:** Students shall take up a real time data of any economic organisation or firm and calculate the important statistical tests for the data and write the results with interpretations in the given format, not exceeding 10 pages, and submit to the teacher, as Fieldwork Report
- **Suggested Fieldwork Format** (Report shall not exceed 10 pages):

SEMESTER-V

COURSE 12B: FINANCIAL PLANNING

Theory

Credits: 4

4 hrs/week

Course Objective: To equip students with fundamental knowledge on personal and professional financial planning, budgeting, savings, investments, tax planning, and retirement planning with a view to helping them develop practical financial literacy and prepare for careers in banking, finance, insurance, and financial consultancy.

Course Learning Outcomes

After completing the course, students will be able to:

1. Create personal financial plans and budgets;
2. Plan for reaching financial goals with given budget
3. Compare various investment avenues and make the right investment decision;
4. Plan for personal loans and retirement with financial tools;
5. Gain practical skills to prepare a financially secure retirement plan.

Unit 1: Introduction to Financial Planning

- Meaning, Importance, and Objectives of Financial Planning
- Components of Financial Planning: Income, Expenditure, Savings, Investments, Insurance, and Retirement
- Time Value of Money: Simple and Compound Interest, Present and Future Value
- Steps in Personal Financial Planning Process
- **Activity:** Calculate and compare simple and compound interest rates, present and future value of a certain amount.

Unit 2: Budgeting and Goal Setting

- Types of Income and Expenses
- Budget Preparation: Monthly and Annual
- Setting SMART Financial Goals
- Emergency Funds and Financial Discipline
- Common Budgeting Mistakes and Methods to avoid them
- **Activity:** Prepare a personal budget based on student income/scholarship/family support

Unit 3: Saving and Investment Planning

- Importance of Saving – Short-term and Long-term Goals
- Types of Investment Avenues and Basis of Investment : Bank Products, Market-based Instruments, Government Schemes, Mutual Funds, Gold and Real Estate
- Risk and Return Trade-off - Inflation Risk, Market Risk etc
- Portfolio Diversification - Meaning, Types and Benefits
- **Practical Exercise:** Use of SIP Calculator and Mutual Fund Comparison

Unit 4: Personal Loan Planning

- Types of Personal Loans, Choosing the right loan product
- Sources of Personal Loans, Credit Cards - Advantages and Disadvantages
- Loan Affordability and EMI Calculation, PAN Card, Credit score and its importance
- Mobile Loan APPs - Pitfalls and risks

Unit 5: Retirement and Estate Planning

- Importance of Early Retirement Planning
- Retirement Instruments: NPS, EPF, Pension Plans
- Planning for Medical Expenses and Inflation
- Will, Nomination, and Power of Attorney
- Digital Tools and Apps for Retirement and Estate Planning
- **Project:** Design a retirement plan for a sample individual (case study)

References:

1. Jack Kapoor , Les Dlabay, Robert J. Hughes (2020), *Personal Finance*, 12th Ed. New York: McGraw Hills.
2. Indian Institute of Banking & Finance. (2017). *Introduction to financial planning* (4th ed.), New Delhi: Taxmann Publications Pvt. Ltd.
3. Halan, M. (2018). *Let's Talk Money: You've worked hard for it, now make it work for you* (2nd ed.). HarperBusiness.
4. Websites:
 - www.sebi.gov.in
 - www.rbi.org.in
 - www.nseindia.com
 - www.incometax.gov.in
 - <https://ncfe.org.in/rbi/>

SEMESTER-V

COURSE 13A: MATHEMATICAL METHODS FOR ECONOMICS

Theory

Credits: 4

4 hrs/week

Course Objective: The objective of this course is to make the students learn the simple and basic mathematical tools to be applied in economics for understanding and analysing various economic issues.

Course Learning Outcomes:

1. After the completion of this course, the students will be able to
2. Explain the role of mathematics and applications of set theory in economic analysis;
3. Learn the importance of matrix algebra, types, operations and its applications in economics;
4. Imbibe the rules of basic differentiation and their applications in economic analysis;
5. Apply the rules of differentiation to the problems of optimization in economics;
6. Equip with the knowledge to solve economic problems involving inequalities through Linear programming and planning using input-output analysis.

Unit 1: Sets and Functions

- Calculation of Percentages and Simple Growth rates
- Concept and Importance of Set theory in Economics; Types of Sets, Set Operations and Cartesian Product
- Meaning and Importance of Relation and Functions in Economics
- Types of Functions: Linear, Quadratic, Cubic, Rectangular Hyperbola and Exponential Functions with graphical representation and numerical examples from economics

Unit 2: Matrix Algebra

- Concept and Importance of Matrices in Economics; Types of Matrices
- Matrix Operations: Additions and Multiplications with numerical examples
- Determinant and Inverse of a 2×2 and 3×3 matrices with numerical examples
- System of Simultaneous Equations: Solution through Cramer's Rule

Unit 3: Differentiation

- Concept and Importance of Differentiation, Slope of a curve and Derivative
- Rules of Differentiation: Constant, Power, Sum, Product, Quotient, Exponential functions
- First Order and Second Order Derivatives and their Interpretations with numerical examples
- Derivatives and the Concepts of Marginal Utility, Marginal Product, Marginal Revenue, Marginal Cost and Marginal Propensity to Consume

Unit 4: Optimization

- Concept and importance of Optimization in Economics
- Conditions for Maxima and Minima of a Function with graphical illustration
- Simple Economic Applications: Maximization of Output, Revenue, Profit
- Cost Minimisation

Unit - 5 Linear Programming and Input - Output Analysis

- Linear Programming: Concept and Importance
- Solution to Linear Programming Problem through Graphical Method
- Input - Output model: Importance
- Solving Closed Input-output model with 2 x 2 matrix

References:

1. Chiang, A.C. (1986), *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.
2. Edward Dowling (2011): *Schaum's Outline of Introduction to Mathematical Economics*, Tata McGraw Hill Publications.
3. Alien, R.G.D. (1974), *Mathematical Analysis for Economists*, Macmillan Press and ELBS, London.
4. Knut Sydsaeter and Peter Hammond (2008), *Mathematics for Economic Analysis*. Pearson education.
5. Open Source Online Materials & Videos: IGNOU, e-PG Pathasala, SWAYM, Khan Academy etc.

Suggested Activities:

- **Unit-1:** Assignments on solving ratios, percentages, grow rates and sets
- **Unit-2:** Exercises on modeling functions, drawing graphs and its applications
- **Unit-3:** Group Projects for solving and application of Matrix algebra
- **Unit-4:** Exercises on solving differential equations and their application in economics
- **Unit-5:** Solving problems related to the concepts in economics

SEMESTER-V

COURSE 13B: INSURANCE SERVICES

Theory

Credits: 4

4 hrs/week

Course Objective: This course aims to enlighten the students with the fundamental concepts of insurance services and practical dynamics, skills needed to work in the Insurance sector.

Course Learning Outcomes:

After completing the course, students will be able to:

- Explain the concept and principles of insurance service and functioning of insurance service agencies.
- Understand different life insurance products.
- Identify the need for general Insurance and different general insurance products.
- Demonstrate practical skills to enable them to start an insurance service agency or find employment in this sector.
- Evaluate the performance of local case studies by understanding customer mindset and the role of various supporting institutions under the existing regulations.

Unit 1: Insurance Concept and Principles

- Concept of Risk and Uncertainty, Risk Classification
- Insurance: Concept and Importance
- Types of Insurance: Life Insurance, General and Health Insurance
- Insurance Regulations in India, Role of IRDAI; Scope for Insurance Business in India

Unit 2: Life Insurance and Products

- Life Insurance: Nature and Features
- Major Life Insurance Companies in India
- Life Insurance Products: Conventional, Unit Linked, Annuities, Group Policies, Micro Insurance

Unit 3: General and Health Insurances and Products

- General Insurance: Nature, Features and Types
- Major General Insurance Companies in India (NOUN); Important General Insurance Products; Role of Surveyor
- Health Insurance: Nature and Features; Role of Medical Examiner in issuing Insurance policy
- Health Insurance Companies in India; Major Health Insurance Products/policies and their Features: Individual, Family, Group, Arogya Sanjeevini

Unit 4: Practicing as an Insurance Agent

- Insurance Contract and Terms of Insurance Policy
- Registration of Insurance Agent/Agency with the Company
- Procedure to issue a Policy: Application and Acceptance; Policy Lapse and Revival; Premium Payment, Assignment, Nomination and Surrender of Policy, Policy Claim
- Important Websites and Apps of Insurance in India

Unit 5: Understanding the Customer and Case Studies

- Insurance Customer and Categories
- Understanding Customer Mindset and Satisfaction
- Addressing the Grievances of the Customer, Ethical Behavior in Insurance, Moral Hazard
- Discussion of two different Case Studies related to Life or General or Health Insurance Services

References:

- Insurance Institute of India, (2011), *Principles of Insurance, IC-01*, Mumbai.
- Insurance Institute of India (2011), *Practice of Life Insurance (IC-02)*, Mumbai.
- Insurance Institute of India (2011), *Practice of General Insurance (IC-11)*, Mumbai.
- G. Dionne and S.E. Harrington (Eds.) (1997), *Foundations of Insurance Economics*, Kluwer Academic Publishers, Boston.
- <https://www.irdai.gov.in>

Co-Curricular Activities:

- Mandatory (*Training of students in the related skills by the teacher for a total 10 Hours*)
- For Teacher: Training of students by teacher in the classroom and in the field for a total of not less than 10 hours on skills and hands on experience like explaining the details of an insurance policy to a customer – life, health and general policy, filling up application for a policy, calculation of premium and claim, make use of important websites and apps etc. pertaining to insurance and making a field visit to any insurance organization in the local area. The expertise of practicing insurance agent or trainer can be utilized for this purpose.
- For Students: Students shall visit and understand the functioning of the insurance agency of their interest in the local area. They shall write their individual observations in the given format, not exceeding 10 pages, and submit to the teacher, as Fieldwork Report
- Suggested Fieldwork Format (*Report shall not exceed 10 pages*):
- Title Page, Student Details, Acknowledgments, Index page, Objectives, Step-wise process, Findings, Conclusion & References.
- Max Marks for Fieldwork Report: 05
- Unit Tests/Internal Examinations.

Suggested Activities:

- Unit-1: Assignment on importance of insurance in India
- Unit-2: Seminars on types of life insurance products
- Unit-3: Quiz on concepts covered
- Unit-4: Role play on being an insurance agent
- Unit-5: Case studies / Article reading activity on issues of insurance sector

SEMESTER-VI

COURSE 14 A: RESEARCH METHODOLOGY

Theory

Credits: 4

4 hrs/week

Course Objective: To equip students with foundational knowledge on research methodology and develop skills to design, implement, and document a research project effectively.

Course Learning Outcomes:

After the completion of this course, the students will be able to

- Demonstrate the knowledge relating to research, its role in enhancement of knowledge in social sciences in general and economics in particular;
- Analyse and apply different research methods
- Formulate a good research design to undertake mini research projects;
- Undertake a field survey by himself/herself to collect relevant data and information;
- Develop capacity to write a simple project report with all relevant components.

Unit 1: Foundations of Research

- Meaning and Importance of Research
- Scientific and Social Science Research
- Objectivity vs Subjectivity in research: Methods of ensuring Objectivity in Social Science Research
- Limitations of Research in Social Science, Ethics in Research

Unit 2: Methods of Research

- Exploratory, Descriptive, Analytical, and Evaluation Research
- Experimental and Action Research
- Case Study, Observational, Participatory, and Ethnographic Research
- Mixed Methods Approach

Unit 3: Planning of Research Project

- Research Problem: Process and Criteria for Selecting a Research Problem
- Review of Theoretical literature and empirical research works in related area
- Writing research objectives and formulating hypotheses.
- Choice of Data for Research: Secondary and Primary Data; Census and Sample Data
- Preparation of a Research Proposal; Components of a good Research Proposal.

Unit 4: Implementation of a Research Project

- Designing Tools: Questionnaire, Interview Schedule, Pilot Testing
- Data Collection: Qualitative Techniques
- Data Collection: Quantitative Techniques
- Data Processing: Coding, Graphical Representation, Basic Statistical Analysis

Unit 5: Report Writing

- Types of Research Report; Nature of Language used in Research Report
- Outlines of a good Research Report; Prefatory Items, Body of the Report, References, Bibliography, Appendices
- Ethical values in Research Report, Plagiarism Test
- Components of a good Research Paper

References:

1. **Kurien, C. T.** (1973). *A Guide to Research in Economics*. Chennai: Sangam Publishers for Madras Institute of Development Studies
2. **Krishnaswami, O. R., & Ranganatham, M.** (2018). *Methodology of Research in Social Sciences*. Mumbai: Himalaya Publishing House
3. **Kothari, C. R.** (2004). *Research Methodology: Methods and Techniques*. New Delhi: New Age International Publishers
4. **Sharma, K. V. S.** (2010). *Statistics Made Simple: Do it Yourself on PC*, 2nd edition, New Delhi: Prentice Hall of India
5. **Creswell, J. W., & Creswell, J. D.** (2018), *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, New Delhi: Sage Publications
6. **Mishra, S. B., & Alok, S.** (2017). *Handbook of Research Methodology*, Bilaspur: Educreation Publishing
7. **Booth, W. C., Colomb, G. G., & Williams, J. M.** (2016), *The Craft of Research*, Chicago: University of Chicago Press
8. **Kumar, S. Anil, Poornima, S. C., Abraham, M. K., & Jayashree, K.** (2023), *Entrepreneurship Development*, 2nd ed, New Delhi: New Age International Publishers

Web References

- National Digital Library of India (NDLI)
<https://ndl.iitkgp.ac.in>
- SWAYAM – Research Methodology Courses
<https://swayam.gov.in>
- Google Scholar
<https://scholar.google.com>
- Shodhganga (INFLIBNET)
<https://shodhganga.inflibnet.ac.in>
- Reference Managers
<https://www.zotero.org>
- <https://www.mendeley.co>

Video/Audio References

1. NPTEL Video Lectures – Research Methodology
2. SWAYAM MOOC: Research Methodology for Social Sciences
3. YouTube – UGC NET Research Aptitude Tutorials
4. Spotify Podcasts – "The Research Room"

Co-Curricular Activities:

- **Mandatory** (*Training of students in the related skills by the teacher for a total 10 Hours*)
- **For Teacher:** Training of students by teacher in the classroom and in the field for a total of not less than 10 hours on skills and hands on experience like evaluation of program, selection of research problem, doing literature survey, preparation of research proposal, data editing, graphs and statistics, writing research report and paper etc. and make field visit to study a simple research issue. The expertise of practicing researchers can be utilized for this purpose.
- **For Students:** Students shall take up a small research issue of their interest and visit a field area related to that problem. They shall write their individual observations in the given format, not exceeding 10 pages, and submit to the teacher, as Fieldwork Report
- **Suggested Fieldwork Format** (*Report shall not exceed 10 pages*):
- Title Page, Student Details, Acknowledgments, Index page, Objectives, Step-wise process, Findings, Conclusion & References.
- Max Marks for Fieldwork Report: 05
- Unit Tests/Internal Examinations.

Suggested Activities

- Unit-1: Group Discussion/Debate on “Can social science research be truly objective?”
- Unit-2: Seminar/Visual Poster on Qualitative vs Quantitative vs Mixed Methods
- Unit-3: Mini Field Project: Conduct brief field survey & formulate research questions
- Unit-4: Critical Review of a published journal article or thesis Unit
- Unit-5: Report Structuring Activity: Reconstruct a shuffled research report layout in teams

SEMESTER-VI

COURSE 14B: RETAIL AND DIGITAL MARKETING

Theory

Credits: 4

4 hrs/week

Course Objective: This course provides a holistic understanding of retail marketing principles and practices, focusing on both traditional and digital retail environments with a view to equipping students to apply marketing strategies effectively across diverse platforms.

Course Learning Outcomes :

After completing the course, students will be able to:

- Explain the concepts and principles about the retail and digital marketing;
- Identify the behaviour of the consumers to promote retail marketing;
- Analyse and compare different strategies used in retail marketing;
- Apply digital marketing tools and techniques in real or simulated business environments;
- Evaluate retail and digital marketing models using case studies and market examples.

Unit- 1: Concept of Marketing

- Concept and Functions of Marketing; Types of Marketing
- Market Segmentation and Targeting; Marketing Mix and Strategy
- Marketing Research
- Major Pricing Strategies in Retail and Digital marketing

Unit- 2: Understanding Product and Consumer

- Types of Product Marketing; Product Decisions and Strategies
- Product Life Cycle Management
- Understanding Indian Consumer, Strategies of persuading the consumer
- Sale Promotion: Advertisement, Branding and Packaging

Unit- 3: Retail Marketing Models

- Concept and Types of Retailing; Big and Small Format Retail
- Retail Marketing Mix and Multi-channel Strategies
- Essentials of Successful Retailing; Retail Store Management
- Emerging Trends and Shopping Behaviour in Retail Markets

Unit -4: Digital Marketing Models

- Digital Marketing: Concept and Types
- Digital vs Physical Retail Marketing;
- Consumer Behaviour in Digital Space; Digital Strategy of Key Market Players
- Tools and Apps for Digital Marketing: Google trends, Youtube analytics

Unit- 5: Marketing Models and Case Studies

- Marketing Models of Retail and Digital Market Companies/Shops: Global, National and Local levels
- Case Studies on Physical Retailing: D-Mart, Vishal - Mart, Reliance etc
- Case Studies on e-Retailing: Instamart, JioMart, Meesho etc
- Student-led Case Presentations and Reflections

References:

1. **Levy, M., Weitz, B. A., & Grewal, D.** (2022). *Retailing Management*, 10th ed., New Delhi: McGraw Hill.
2. **Chaffey, D., & Ellis-Chadwick, F.** (2020), *Digital Marketing*, 7th ed., London: Pearson Education.
3. **Kotler, P., Keller, K. L.** (2021), *Marketing Management*, 15th ed., London: Pearson Education.
4. **Saxena, Rajan.** (2020), *Marketing Management*. New Delhi: McGraw Hill, India.

Web Resources:

- <https://neilpatel.com/training/>
- Google Digital Garage – Free certification in digital marketing
- HubSpot Academy – Free digital marketing courses
- Retailers Association of India – News, trends, and industry updates
- Think with Google – Insights into consumer trends

Video/Audio Resources:

- YouTube: “Simplilearn – Digital Marketing Full Course”
- Podcast: “Marketing School” by Neil Patel & Eric Siu

Suggestive Activities:

- Unit 1 – Concept Mapping (Understand): Students create a concept map linking key marketing terms and strategies in retail and digital contexts.
- Unit 2 – Product Life Cycle Analysis (Analyze): Students analyze the life cycle stage of a chosen product and suggest appropriate marketing strategies.
- Unit 3 – Retail Store Observation (Apply): Students visit a local retail store (or virtual tour) and report on store layout, retail mix, and shopper behavior.
- Unit 4 – Digital Tool Demo (Apply & Evaluate): In groups, students demonstrate a digital marketing tool by simulating a basic campaign or customer engagement strategy.
- Unit 5 – Case Study Presentation (Create & Evaluate): Students present a real retail or digital marketing case and lead peer discussion with structured feedback.

SEMESTER-VI

COURSE 15A: DATA ANALYSIS AND CASE STUDIES

Theory

Credits: 4

4 hrs/week

Course Objectives: This undergraduate course provides an in-depth exploration of the Indian economy through data analysis, using Google Sheets as the primary tool with the option of using Excel sheets and SPSS package. The course is structured into five Units. The first unit provides basic knowledge on the use of Google Sheets, three on key aspects of the Indian economy, viz., agriculture and rural development, industry and infrastructure, public finance and external sector and the last one focuses on case studies of mini projects on local issues. Students will develop practical skills in sourcing or collecting secondary and primary data, cleaning, analysing, and interpreting India-specific economic data, culminating in a final project. No prior knowledge of Google Sheets is required, though familiarity with basic spreadsheets is beneficial.#

Course Learning Outcomes:

After successful completion of this course, the students will be able to

1. Acquire basic knowledge on operation of Google Sheets for Statistical analysis of economic data.
2. Analyse data on Indian agriculture and rural development to understand trends and policy impacts using Google Sheets.
3. Examine India's industrial and infrastructure data through sourcing, organization, and analysis in Google Sheets.
4. Apply data analysis to India's public finance and external sector using advanced Google Sheets tools.
5. Collect primary data, analyse and prepare a mini project report on local issues

Unit – 1: Introduction to Google Sheets

- Google Sheets Interface: Workbook, worksheets, rows, columns, cells, menus, and data entry.
- Basic Functions: SUM, AVERAGE, COUNT, IF, MIN, MAX – syntax and applications in economics.
- Data Management Tools: Sorting, filtering, conditional formatting, data validation.
- Chart Creation and Formatting: Line, bar, and pie charts – editing and presentation of economic data.

Unit 2: Exploring Agriculture and Rural Development

- **Macroeconomic Concept:** Agriculture and rural development (e.g., agricultural output, productivity, rural development programs).
- **Sources of Data:** Agricultural production and MSP data (<https://agricoop.nic.in>), RBI: Agricultural credit and pricing data (<https://www.rbi.org.in>), Andhra Pradesh Directorate of Economics and Statistics (<https://des.ap.gov.in/MainPage.do>)
- **Organizing Data:** Collect data on agricultural output, productivity, and rural development programs (e.g., PM-KISAN, MGNREGS, 2015–2024). Structure data in Google Sheets

with columns for year, crop output (e.g., rice, wheat), productivity (yield per hectare), and program expenditures. Clean data: standardize units (e.g., output in metric tons), remove outliers, and use conditional formatting to highlight key crops or regions.

- **Analysing Data:** Calculate average productivity and expenditure trends using AVERAGE and MEDIAN. Create bar charts to visualize agricultural output and rural program impacts. Analyse correlations between agricultural credit and productivity using the CORREL function.

Unit 3: Investigating Industry and Infrastructure Development

- **Macroeconomic Concept:** Industry and infrastructure (e.g., industrial output, public vs. private sector, infrastructure investment).
- **Sources of Data:** Ministry of Commerce and Industry: Industrial production data (<https://commerce.gov.in>). RBI: Infrastructure investment statistics (<https://www.rbi.org.in>).
- **Organizing Data:** Collect data on industrial output and infrastructure investment (e.g., 2010–2024). Create a Google Sheets spreadsheet with columns for year, industrial production index, public/private sector contributions, and infrastructure spending. Clean data: standardize units (INR), handle missing values, and ensure consistent base years.
- **Analyzing Data:** Calculate growth rates for industrial output. Use pivot tables to summarize infrastructure spending by sector (e.g., power, transport). Create stacked bar charts to visualize public vs. private sector contributions.

Unit 4: Evaluating Public Finance and External Sector

- **Macroeconomic Concept:** Public finance and external sector (e.g., fiscal deficits, foreign trade, balance of payments).
- **Sources of Data:** Union Budget of India: Fiscal data (<https://www.indiabudget.gov.in>). RBI: Balance of payments and trade data (<https://www.rbi.org.in>). Ministry of Commerce: Foreign trade statistics (<https://commerce.gov.in>), <https://dpiit.gov.in/publications/fdi-statistics>
- **Organizing Data:** Collect data on fiscal deficits, trade volumes, and balance of payments (e.g., 2010–2024). Create a Google Sheets spreadsheet with columns for year, fiscal deficit, exports, imports, and current account balance. Clean data: standardize units (INR or USD), handle missing values, and use data validation for accuracy.
- **Analyzing Data:** Use pivot tables to summarize fiscal expenditures by category (e.g., defence, education). Apply conditional formatting to highlight trade deficits or fiscal trends. Create charts (e.g., line charts for trade trends) and write a report to communicate findings.

Unit 5: Mini Projects as Case Studies Using Primary Data

- **Concept:** Collecting data on local issues such as Income and Consumption behaviour of households, Role of Microfinance in alleviating poverty, problems of migrant workers working in unorganized sectors like construction activities, Problems of Gig workers, Issues in Local environmental and public problems such as vehicular traffic, air pollution, water pollution or any other relevant issue to undertake small project.

- **Organizing Data:** Collect data using small questionnaires or schedules, enter the data in Excel sheets, Cross check, clean and standardize data for missing values, and validate data for accuracy.
- **Analysing Data:** Use pivot tables to get summary measures of averages, measures of dispersion, Correlation, Regression analysis, t-test, F-test, Chi-square test, ANOVA and interpret the results in a report not exceeding 5 to 10 pages.

#Note to the Teacher: Since this course is the final part of the first stream of A series optional courses the students would have gained adequate knowledge on Statistical Methods, Inferential Statistics, Statistical packages like Excel and SPSS, they would be able to apply all the tools and techniques they have learned through above courses. The teacher needs to introduce the particular topic given in each of the above five domains or any other relevant one in the opinion of the teacher to the students, instructing them to undertake the data analysis and interpretation of the results.

Course Resources

- **Software:** Google Sheets (free, accessible via Google account).
- **Datasets:** India-specific economic datasets from RBI, MoSPI, Ministry of Commerce, Ministry of Agriculture, Government Budgets, CMIE, and international sources (UNDP).
- <https://www.data.gov.in/>
- <https://www.ap.data.gov.in/>
- **References:**
 - Datt, G., & Mahajan, A. (2023). Indian Economy (81st ed.). New Delhi, India: S. Chand Publishing.
 - Google Sheets documentation for functions, pivot tables, and visualization tools.
- **Supplementary Tools:** Google Sheets add-ons like "Data Analysis Toolpak" for statistical functions.

SEMESTER-VI

COURSE 15B: LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Theory

Credits: 4

4 hrs/week

Course Objective: This course provides a holistic understanding of how Logistics and Supply Chain Management play a vital role in cutting costs and boosting customer satisfaction to equip students to study transportation basics, containerization, packing variations, and the complexities of export logistics.

Course Learning Outcomes:

After completing the course, students will be able to:

1. Explain the strategic role of Logistics and Supply chain Management in cost reduction and offering improved service to the customers.
1. Combine the traditional physical distribution activity with modern Information Technology.
2. Analyse and explain the Basics of transportation and Containerization.
3. Distinguish between essential features of various types of Packing and Packaging.
4. Evaluate special aspects of export logistics.

Unit-1: Introduction

- Meaning, Importance and Concepts of Logistics and Supply Chain Management (LSM)
- Evolution of LSM - Key Drivers of Supply Chain Management and Logistics Relationships
- National Logistic Policy and LEADS Index in India

Unit - 2: Basics of Transportation

- Transportation Functionality and Principles - Multimodal Transport - Modal characteristics
- Modal Comparisons - International Air Cargo Transport - Coastal and Ocean transportation - Types of Ships - Characteristics of Shipping Transport.

Unit 3: Containerization

- Genesis, Concept, Classification, Benefits and Constraints of Containerisation
- Inland Container Depot (ICD): Roles and Functions Container Freight Station (CFS)
- Export Clearance at ICD CONCOR - ICDs under CONCOR.

Unit - 4: Packing and Packaging

- Meaning, Functions and Essentials of Packing and Packaging
- Types of Packaging - Packing for Storage Product Content Protection Requirements of Consumer Packaging, Channel Member Packaging and Transport Packaging - Shrink Packaging
- Identification Codes, Bar Codes, and Electronic Data Interchange
- Universal Product Code - GSI Standards - Package Labels and Symbols

Unit - 5: Special Aspects of Export logistics

- Picking, Packing, Vessel Booking (Less-than & Full Container Load), Customs, Documentation, Shipment, Delivery to Distribution Centres, Distributors and Retail Outlets
- Import Logistics: Documents Collection, Valuing, Bonded Warehousing Customs Formalities, Clearing & Distribution to Units.

References:

1. Altekar, R. V. (2005). *Supply chain management: Concepts and cases*. New Delhi: PHI Learning.
2. Ballou, R. H. (2004). *Business logistics/supply chain management: Planning, organizing, and controlling the supply chain* (5th ed.). London: Pearson / Prentice Hall.
3. Bowersox, D. J., Closs, D. J., Cooper, M. B., & Bowersox, J. C. (2013). *Supply chain logistics management* (4th ed.). New Delhi: McGraw-Hill.
4. Chopra, S., Meindl, P., & Kalra, D. V. (2013). *Supply chain management: Strategy, planning, and operation* (5th ed.). London: Pearson Education.
5. Sahay, B. S. (2000). *Supply chain management for global competitiveness*. New Delhi: Macmillan India.
6. Open Source Online Materials & Videos: IGNOU, e-PG Pathasala, SWAYAM, Khan Academy etc.

Suggested Activities:

1. Assignments and Student Seminars on themes of Logistics
2. Quiz testing the understanding and application of Supply chain management
3. Student study project in local markets
4. Group discussions on special aspects of export logistics and their effectiveness.