

# JYOTI NIVAS COLLEGE AUTONOMOUS

**Programme: BBA**

**Semester VI**

**ANALYTICS-ELECTIVE**

**MARKETING AND FINANCIAL ANALYTICS**

**No. of Credits: 4**

**No. of Hours: 60**

## **COURSE OBJECTIVES:**

- Understand the fundamentals of analytics for marketing and financial applications.
- Apply data handling, visualization, and preprocessing techniques using Generative AI to analyze business data.
- Analyze customer and financial data using statistical and predictive modeling techniques.
- Evaluate marketing and financial performance using advanced analytics tools
- Create interactive dashboards and data-driven reports using Power BI for business decision making.

## **LEARNING OUTCOMES:**

- Explain how analytics supports marketing and financial decisions using real-world business examples.
- Apply basic program coding for data structures, data import, and preprocessing.
- Perform customer segmentation and interpret digital marketing metrics (clicks, impressions, conversions).
- Analyze financial statements and compute key ratios to assess business performance.
- Create visualizations and dashboards using Power BI.
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### **UNIT-1: INTRODUCTION TO ANALYTICS**

**12 HRS**

Analytics, Importance of Analytics in Marketing & Finance. Types of Analytics – Descriptive, Predictive, and Prescriptive., Basic Data Types (Lists, Dictionaries, Data Frames).

#### **Lab session:**

- **Setting Up Google Colab**
- **Basic Commands using Claude & Simple Data Operations.**
- **Importing Data (CSV, Excel) Using Claude.**
- **Basic Data Cleaning & Manipulation.**

### **UNIT-2: MARKETING ANALYTICS – UNDERSTANDING CUSTOMERS & MARKET TRENDS**

**12 Hours**

Understanding Customer Data & Market Segmentation. Introduction to Digital Marketing Analytics – Google Analytics, SEO, SEM. Customer Feedback & Sentiment Analysis – Basics of Text Analytics [**Theory only**].

#### **Lab session:**

- **Basic Customer Segmentation using Spreadsheets (Using Simple Filters & Grouping).**
- **Analyzing Google Analytics Data – Clicks, Impressions, Conversions.**

**UNIT-3: FINANCIAL ANALYTICS – KEY BUSINESS INSIGHTS 12 Hours**

Introduction to Financial Data – Revenue, Expenses, Profit, Cash Flow. Basic Financial Ratios & Their Interpretation (Profitability, Liquidity, Efficiency). Forecasting Sales & Revenue – Simple Moving Averages.

**Lab Session:**

- **Financial Data Visualization using AI Generated codes**
- **Calculating Financial Ratios Using Generative AI.**
- **Simple Revenue Forecasting Using Generative AI.**

**UNIT-4: PREDICTIVE ANALYTICS & BUSINESS DECISION MAKING 12 Hours**

Basic Introduction to Predictive Analytics. Using Regression Analysis to Predict Sales & Market Trends. Introduction to A/B Testing for Marketing Campaigns.

**Lab Session:**

- **Simple Linear Regression Using Generative AI .**
- **A/B Testing Basics with Sample Marketing Data using Generative AI.**

**UNIT-5: BUSINESS INTELLIGENCE & DASHBOARDS 12 Hours**

Introduction to Business Intelligence & Data Storytelling. Building Interactive Reports in Power BI , Marketing Mix Modelling – Understanding ROI and Budget Allocation. Financial Risk Analytics – Identifying Market & Credit Risk Using Data.

**Lab Session:**

- **Building an Interactive Dashboard Using Power BI.**
- **Developing a Marketing Mix Model Using Generative AI.**
- **Risk Analysis Using Financial Data & Visualization Tools using Power BI.**

**Skill Development Activities:**

- List out the different types of analytics and briefly explain each with an example.
- List out the various sources of customer data.
- Explain how Simple Moving Average can be used to forecast sales and revenue.
- Compare and contrast data visualization and data storytelling.

**Books for References:**

- Yuxi (Hayden) Liu, Shuang Wu, Hands-On Data Science for Marketing, Packt Publishing.
- Mark J. Bennett, Dirk L. Hugen, Financial Analytics with R and Python, Cambridge University Press.
- Yves Hilpisch, Python for Finance: Mastering Data-Driven Finance, O'Reilly Media.

**Note: Latest edition of text books may be used.**

**JYOTI NIVAS COLLEGE AUTONOMOUS**  
**Programme: BBA/B.VOC(B&F)**  
**Semester: VI**  
**FINANCE-ELECTIVE**  
**Security Analysis and Investment Management**

**No. of Credits: 4**

**No. of Hours: 60**

**Course Objectives:**

- Evaluate the different types of investment alternatives.
- Evaluate portfolio and portfolio management.
- Understand fundamental and technical analysis.

**Learning Outcomes:**

- Understand the concept of basics of Investment.
- Evaluate the different types of investment alternatives.
- Evaluate portfolio and portfolio management.
- Understand the concept of risk and returns.
- Understand fundamental and technical analysis and EMH

**Unit-1: Introduction to Investments**

**12 Hours**

Introduction- Investment process, Criteria for Investment, types of Investors, Investment, Speculation and Gambling. Elements of Investment, Investment Avenues, Factors influencing selection of investment alternatives. Security Market- Introduction, functions, Secondary Market Operations. Stock Exchanges in India, Security Exchange Board of India, Government Securities Market, Corporate Debt Market and Money Market Instruments.

**Unit-2: Risk-Return Relationship**

**10 Hours**

Meaning of risk, types of risk, measuring risk, risk preference of investors. Meaning of return, measures of return, holding period of return, Annualized return, expected return, investors' attitude towards risk and return.

**Unit-3: Portfolio Management**

**14 Hours**

Meaning of portfolio – Reasons to hold portfolio – Diversification analysis – Framework of Portfolio Analysis – Selection and Evaluation – Markowitz's Model – Assumptions – Specific model – Risk and return optimization. Efficient frontier – Efficient portfolios – Leveraged portfolios – Corner portfolios (Theory only) Sharpe's Single Index model – Portfolio- evaluation measures – Sharpe's Performance Index – Treynor's Performance Index – Jensen's Performance Index.

**Unit-4: Asset Pricing Models**

**10 Hours**

Capital Asset Pricing Model (CAPM): Introduction, Assumptions, Capital Market Line (CML), Security Market Line (SML), Distinction between CML and SML, Limitations of CAPM, Problems.

Arbitrage Pricing Theory (APT): Introduction, Arbitrage Portfolio, Model, Distinction

between CAPM and APT. Applications of APT.

### **Unit-5: Fundamental Analysis, Technical Analysis and Efficient Market Hypotheses** **14 Hours**

Introduction- Investment Analysis Fundamental Analysis, Macro Economic Analysis, Industry Analysis, Company Analysis, Meaning of Technical Analysis, Fundamental vs Technical Analysis, Charting techniques, Technical Indicators. Efficient Market Hypothesis – Meaning, Importance, Forms of EMH- Strong, Semi-strong and weak form of EMH.

#### **Skill Development Activities:**

- List the key differences between the Government Securities Market and the Corporate Debt Market.
- Differentiate between systematic and unsystematic risk and give examples for each risk.
- Draw a structure of fundamental analysis.
- Draw three basic types of chart patterns used in Technical Analysis.

#### **Books for References:**

- Brahmiah & P. Subba Rao, Financial Futures and Options, HPH.
- Singh Preeti, Investment Management, HPHG
- Alexander Fundamental of Investments, Pearson Ed.
- Hangen: Modern Investment theory. Pearson Ed.
- Kahn: Technical Analysis – Plain and simple Pearson Ed.
- Ranganthan: Investment Analysis and Port folio Management.
- Chandra Prasanna: Managing Investment – Tata Mc Gram Hill.
- Alexander, shampe and Bailey – Fundamentals of Investments Prentice Hall of India
- Newyork Institute of Finance – How the Bond Market work – PHI.
- Mayo Investment Thomason hearing

**Note: Latest edition of text books maybe used**

**JYOTI NIVAS COLLEGE AUTONOMOUS**  
**Programme: BBA**  
**Semester: VI**  
**HUMAN RESOURCE-ELECTIVE**  
**EMPLOYEE WELFARE AND SOCIAL SECURITY**

**No. of Credits: 4**

**No. of Hours: 60**

**COURSE OBJECTIVES:**

- To enable students to understand concept and importance of employee welfare and social security.
- To give them an insight into the labour laws and welfare measures applicable to employees in India.
- To understand workplace safety, employee health and wellness programs.

**LEARNING OUTCOMES:**

- To learn various labour welfare policies and practices in India
- To understand the importance and role of negotiation in conflict resolution.
- To understand the importance of cross-cultural and gender dimensions of negotiation.

**UNIT 1: CONCEPT OF EMPLOYEE WELFARE AND SOCIAL SECURITY 14 Hours**

Introduction, Meaning of Employee Welfare and Social Security, Origin of Employee Welfare & Social Security, Merits and Demerits of Employee Welfare and Social Security in the Indian Context. Types of Welfare Activities- Statutory Employee Welfare and Non- Statutory Employee Welfare in India. Growth of Employee Welfare and Social Security in India post-independence. Employee Welfare and Social Security during any crisis.

**UNIT 2: EMPLOYEE WELFARE POLICY IN INDIA 12 Hours**

Employee Welfare Activities Undertaken by the Employer, Legislative Provisions regarding Labour welfare in India - Minimum Wages Act 1948, , ESI Act 1948, Employees' Compensation Act 1923, Provident Fund Act 1952, Maternity Benefit Act 1961, Payment of Gratuity Act 1972, The unorganized Workers' Social Security Act 2008, Code of Social Security 2020.(Objectives and Features only); Recent amendments to Labour Laws and Recent development in Labour Codes

**UNIT 3: SAFETY AND HEALTH IN ORGANIZATIONS 10 Hours**

Factories Act 1948- Industrial Health and Safety in the Indian context; Industrial Accidents-causes and prevention; Meaning of safety, Need for safety and measures to ensure safety in Industries, Legal Provisions for safety and health in India. Employee Health - Employee Health and Occupational Hazards; Job stress - Causes and

measures to tackle stress; Alcoholism and Drug abuse among workers - causes and remedies; Legal Provisions for health in India.

#### **UNIT 4: EMPLOYEE COUNSELLING AND WELLNESS SERVICES**

##### **Hours**

Employee Counselling - Meaning, Need for counselling in Industries. Types of counselling, Conditions for counselling, Techniques and skills for effective counselling, Problems in counselling, Role of H.R. Managers in Counselling; Employee Assistance Programs ( EAPs)  
Employee Wellness Services- Importance, Health promotion programs.

#### **UNIT 5: QUALITY OF WORK LIFE**

**10**

##### **Hours**

Quality of Work life (QWL):- Meaning, Emergence and Growth of QWL, Components of QWL, Specific issues in QWL, QWL and Productivity, Measurement of Quality of Work Life, Barriers in QWL, Strategies for improvement of QWL.

##### **Skill Development Activities:**

- List out the criteria for Quality of Work life
- List any 5 types of Employee Counselling
- List any 5 Health Measures provided by Organizations
- List any 5 Government Schemes to ensure Employee Welfare

##### **Books for Reference:**

- Sarma A.M., Aspects of Labour Welfare and Social Security, Himalaya Publishing House, Mumbai, 2016
- Subba Rao P, Labour Welfare And Social Security, Himalaya Publishing House, Mumbai, 2009
- Parry Jonatha, Breman, Kapadia, The Worlds of Industrial Labour, Sage Publications, New Delhi, 1999
- Board Robert, Counselling People at Work, Gower Publishing , England, 1983
- Rawat, B.D., Labour Welfarism in India-Problems and Prospects, EBSA Publishers, Jaipur, 1988
- Dhyani, S.N., International Labour Organisation and India, National Publishing House, New Delhi, 1977
- Hallen, G.C., Dynamics of Social Security, Rastogi Publication, Delhi, 1984
- Introduction to Social Security, ILO Office, Geneva, 1984
- R.C.Sharma, Nipun Sharma, Human Resource Management- Theory and Practice, , SAGE, 2019
- Amitabha Sengupta, Human Resource Management, concepts, practices and new paradigms, SAGE, 2019
- Piyali Ghosh, Shefali Nandan, Industrial Relations and Labour Laws, McGraw Hill, New Delhi, 2015
- Sparrow Paul, Cooper Cary, The Employment Relationship, Key challenges for HR, Butterworth-Heinemann, -Elsevier, New Delhi, 2008

**Note: Latest edition of text books maybe use**



**JYOTI NIVAS COLLEGE AUTONOMOUS**

**Programme: BBA**  
**Semester VI**  
**MARKETING-ELECTIVE**  
**LOGISTICS AND SUPPLY CHAIN MANAGEMENT**

**No. of Credits: 4**

**No. of Hours: 60**

**Learning Objectives:**

- Understand the fundamental concepts, functions, and processes of logistics and supply chain management.
- Examine the role of logistics and supply chain strategies in achieving organizational competitiveness and operational efficiency.
- Analyse customer-focused supply chain practices and service performance dimensions in supply chain management.
- Evaluate emerging trends, challenges, and risks in logistics and supply chain management within the business environment.

**Course Outcomes:**

- Understand the fundamentals of Logistics and Supply Chain Management
- Comprehend the relationship between competitive strategies and supply chain strategies
- Analyse the latest trends and challenges in the field of Logistics and Supply chain management

**Unit-1: Introduction to Supply Chain Management**

**14 Hours**

Concept of Supply Chain and Supply Chain Management, Importance of SCM, Focus areas in Supply Chain Management, Functions of SCM, Decision phases in Supply chain Management, Process view of Supply Chain- Cycle view and push-pull view, Drivers of SCM, Enablers in Supply Chain Management, Concepts of Integrated supply chains, Autonomous Supply Chain. Supply chain model and Value chain model; Supply Chain trends and challenges in India.

Case Studies (Class discussion only)- The case of AMUL's supply chain to understand Supply chain process and Dabbawalas of Mumbai and their supply chain success story

**Unit-2: Introduction to Logistics Management**

**10 Hours**

Meaning of logistics and Logistics Management, Logistics management and Supply Chain management, Types of Logistics; Functions/ Activities in Logistics; seven R's of Logistics; Key Players in Logistics; Benefits of effective Logistics; Role of logistics in Supply Chain;

Reverse logistics ,Role of Government in Logistics.

**Unit- 3: Customer Focus in Supply Chain Management** **12 Hours**

Meaning and importance of Customer service in SCM - Customer service dimension from a supply chain perspective (Order delivery lead time, responsiveness, delivery reliability and product variety); Customer service capability- availability, operational performance and service reliability.

**Unit-4: Supply Chain Strategies and Strategic Fit** **10 Hours**

Competitive Strategies- Supply chain Strategies- Strategic Fit between competitive strategy and supply chain strategy, Steps in achieving strategic fit, Obstacles to achieving Strategic Fit.

**Unit- 5: Demand Management in Supply Chain** **14 Hours**

Concept of demand in SCM, Types of demand, Role of demand forecasting in supply chain, Forecasting methods, Basic approach to Demand Forecasting; Collaborative planning, forecasting and replenishment (CPFR), Aggregate Planning in a Supply Chain, CODP(Customer order decoupling point) – Concepts only. Demand forecasting tools

**Skill Development Activities:**

- Draw a flow chart showing the basic supply chain and extended supply chain for a FMCG Company
- Draw the structure of any logistical network.
- List out the latest supply chain trends impacting Business performance.
- Write a note on the risks involved in management of the supply chains.
- Case study on AI assistance in Supply chain management

**Books for References:**

- Sunil Chopra & Peter Meindl, Supply Chain Management- Strategy, Planning and Operation, PHI
- R.B. Handfield and E.L.Nichols, Jr. Introduction to Supply Chain Management. Prentice Hall, 1999.
- Dr. R.P. Mohanty & Dr. S.G. Deshmukh, Essentials of Supply Chain Management, Jaico Publishing House
- D. K. Agarwal, Supply Chain Management -Strategy, Cases and Best Practices, Cengage
- David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, Designing & Managing the Supply Chain, McGraw Hill
- Janat Shah, Supply Chain Management Text and Cases, Pearson Education
- Rahul V Altekar, Supply Chain Management –Concepts and Cases, PHI
- Sridhara Bhat, Supply Chain Management, HPH

- Milind M Oka, Supply Chain Management, Everest Publishing House
- Donald. J. Bowersox & Donald. J. Closs, Logistical Management-The integrated Supply Chain Process, TATA Mc-Graw Hill

Note: Latest edition of text books maybe used