

**MANAGEMENT INFORMATION SYSTEM**

**Course Objective:** To understand the importance of information systems in organization for decision making

**Course Outcome:** Students will be able to understand  
a) Concepts & applications of Management Information Systems  
b) Information Systems Planning & Implementations.  
c) Cyber crime and information security

**UNIT - I: Introduction :** MIS importance, definition, nature and scope of MIS, Structure and Classification of MIS, Information and Systems Concept, Types of Information, Information systems for competitive advantage

**UNIT - II: Business Applications of Information Systems:** E-Commerce, ERP Systems, DSS, Business Intelligence, and Knowledge Management System

**UNIT- III: Management of IS:** Information system planning, system acquisition, systems implementation, evaluation & maintenance of IS, IS Security and Control.

**UNIT- IV: Building of Information Systems:** System Development Stages, System Development Approaches, Systems Analysis and Design- Requirement Determination, Strategies for Requirement Determination, Structured Analysis Tools, System Design – Design Objectives, Conceptual Design, Design Methods, Detailed system design.

**UNIT - V: Introduction to Cyber Crime:** Cyber space, cyber law, e-business, e - consumers, spam, phishing, Cyber crime and information security, cyber criminals, Classification of cyber criminals – Indian Perspectives - Cyber crimes and Indian IT Act 2000, Global perspective on cybercrime – Cybercrime etc

**Suggested Readings:**

1. Management Information Systems, Laudon & Laudon, Pearson, 2015
2. Management Information Systems Text and Cases, Jawadekar, Tata Mc Graw Hill, 2012
3. Management Information Systems, Kelkar, Prentice Hall India, 2012



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DATA ANALYTICS

**Course Objective :** To understand the importance of ever-increasing volume, variety and velocity Of data in organization and application of data analytical tools for decision making.

**Course Outcome:** Students will be able to understand

- a) Importance of Analytics
- b) Understanding the analytical tools
- c) Application of Analytical tools to solve business problems.

**UNIT - I: Introduction to Data Analytics:** Introduction to Data- Importance of Analytics- Data for Business Analytics –Big Data - Business Analytics in Practice. Data Visualization – Data Visualization tools, Data queries, Statistical methods for Summarizing data, Exploring data using pivot tables.

**UNIT - II: Descriptive Statistical Measures** – Population and samples, Measures of location, Measures of Dispersion, Measures of variability, measures of Association. Probability, distribution and Data Modeling – Discrete Probability distribution, Continuous Probability distribution, Random sampling from Probability Distribution, Data Modeling and Distribution fitting.

**UNIT - III: Predictive Analytics:** Karl Pearson Correlation Techniques - Multiple Correlation-Spearman's Rank correlation-Simple and Multiple regression-Regression by the method of least squares – Building good regression models – Regression with categorical independent variables - - Linear Discriminant Analysis-One way and Two Way ANOVA

**UNIT - IV: Data Mining :** Scope of Data Mining, Data Exploration and Reduction, Unsupervised learning – cluster analysis, Association rules, Supervised learning- Partition Data, Classification Accuracy, prediction Accuracy, k-nearest neighbors, Classification and regression trees, Logistics Regression.

**UNIT - V: Simulation:** Random Number Generation, Monte Carlo Simulation, What if Analysis, Verification and Validation, Advantages and Disadvantages of Simulation, Risk Analysis, Decision Tree Analysis.

**Suggested Readings:**

1. James Evans, Business Analytics, 2e, Pearson, 2017.
2. Thomas Eri, Wajid Khattack & Paul Buhler : Big Data Fundamentals, Concepts, drivers and Techniques by Prentice Hall of India, New Delhi, 2015
3. Akil Maheswari: Big Data, Upskill ahead by Tata McGraw Hill, New Delhi, 2016

**STRATEGIC MANAGEMENT**

**Course Objective:** To provide a strategic orientation in conduct of the business.

**Course Outcome:** Students will be able to understand

- a) Strategic management concepts
- b) Tools and Techniques for Strategic analysis
- c) Strategies for competing in globalised markets
- d) Strategy Evaluation and Control.

**UNIT – I: Introduction** - Concepts in Strategic Management, Strategic Management Process, Developing a strategic vision, Mission, Objectives, Policies – Factors that shape a company's strategy, Environmental Scanning: Industry and Competitive Analysis – Methods. Evaluating company resources and competitive capabilities – SWOT Analysis – Value Chain Analysis and Competitive advantage.

**UNIT – II: Tools and Techniques for Strategic Analysis** - Porter's Five Force Model, BCG Matrix, GE Model, TOWS Matrix, IE Matrix, The Grand Strategy Matrix. Market Life Cycle Model – and Organizational Learning, Impact Matrix and the Experience Curve, Generic Strategies- Strategy Formulation - Types of Strategies – offensive strategy, defensive strategy, Exit and entry barriers - Tailoring strategy to fit specific industry and company situations.

**UNIT – III: Strategy Implementation:** Strategy and Structure, Strategy and Leadership, Strategy and culture connection - Operationalising and institutionalizing strategy - Strategies for competing in Globalising markets and internet economy - Organizational Values and Their Impact on Strategy – Resource Allocation as a vital part of strategy – Planning systems for implementation.

**UNIT – IV: Turnaround and Diversification Strategies:** Turnaround strategy - Management of Strategic Change, strategies for Mergers, Acquisitions, Takeovers and Joint Ventures - Diversification Strategy: Why firms diversify, different types of diversification strategies, the concept of core competence, strategies and competitive advantage in diversified companies and its evaluation.

**UNIT – V: Strategy Evaluation and control** – Establishing strategic controls for Measuring performance – appropriate measures- Role of the strategist – using qualitative and quantitative benchmarking to evaluate performance - strategic information systems – problems in measuring performance – Guidelines for proper control- Strategic surveillance -strategic audit - Strategy and Corporate Evaluation and feedback in the Indian and international context.

**Suggested Readings:**

1. Hitt & Ireland et al., Strategic Management: A South Asian Perspective, Cengage Learning, 9e, 2013.
2. V.S.P. Rao, V. Hari Krishna; Strategic Management, 1e, Excel Books, 2012
3. S K Sarangi, Modern Strategic Management, Everest Publishing, 2012.
4. Thompson & Strickland: Strategic Management, Concepts and Cases. TMH, 2009.



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**SUPPLY CHAIN MANAGEMENT**

**Course Objective:** To understand the various strategies and networks that are used in business.

**Course Outcome:** Students will be able to understand a) the supply chain strategies b) the supply chain network designing and distribution network c) the demand forecasting for supply chain.

**Unit I:**

**Supply Chain Management** : concept, objectives & importance, Decision Phases in a Supply Chain, Competitive and Supply Chain Strategies, Drivers of Supply Chain Performance, Framework for Structuring Drivers, competitive advantages through supply chain management.

**Unit II:**

**Supply Chain Network** : Designing Distribution Networks and Applications to Business: Role of distribution in a supply chain, Factors influencing distribution network design, design options for a distribution network, e-supply chain, factors influencing network design decisions, framework for network design decisions, models for facility location and capacity allocation, Network Design in an Uncertain Environment: Impact of uncertainty on network design.

**Unit III:**

**Network Design in the Supply Chain:** Network Design & Optimization Approach and Techniques Role of Transportation in Supply Chain- Factors influencing Transportation Decisions - Modes of Transportation - Transportation mode, Selection Process

**Unit IV:**

**Advanced Fleet Management System** Inter modal Freight Technology Transportation Security Initiatives and Role of Technology;

**Unit V:**

**Introduction to Air Cargo:** Aviation and airline terminology - IATA areas - Country – Currency– Airlines - Aircraft lay out - different types of aircraft - aircraft manufacturers - ULD - International Air Routes - Airports - codes – Consortium –Hub & Spoke – Process Flow

**Suggested Readings:**

1. Logistics and Supply Chain Management, MacMillan 2003, 1st Edition
2. Rahul V Altekar, Supply Chain Management concepts and case, PHI, New Delhi.
3. Robert B Handfield and Ernest L Nichols, Supply Chain Management PHI, New Delhi.
4. G Raghuram & N Rangaraj, Logistics and Supply Chain Management - Cases and Concepts. Mac Millan.