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| **COURSE TITLE** | **MANAGEMENT INFORMATION SYSTEM** |
| **COURSE CODE** | **01CT0704** |
| **COURSE CREDITS** | **3** |

**Objective:**

1 The main goals of an MIS are to help executives of an organization make decisions that advance the
organization's strategy and to implement the organizational structure and dynamics of the enterprise for the purpose of managing the organization in a better way for a competitive advantage.

2 After completion of this course, student will be able to:
1. Understand the role of management information systems in achieving competitive business advantage through informed decision making.
2. Analyze how information technology affects a firm in terms of value creation and brings strategic benefits to a firm.
3. Interpret how to use information technology to solve business problems.
4. Develop meaningful decision-making capacity for the purpose of acquisition, development, deployment and management of information systems.

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**Course Outcomes:** After completion of this course, student will be able to:

1 Understand the role of management information systems in achieving competitive business advantage through informed decision making. [Understand]

2 Analyze how information technology affects a firm in terms of value creation and brings strategic benefits to a firm. [Analyze]

3 Interpret how to use information technology to solve business problems. [Understand]

4 Develop meaningful decision-making capacity for the purpose of acquisition, development, deployment, and management of information systems. [Apply]

**Pre-requisite of course:**This subject consists of knowledge of computer system consisting of hardware and software that serves as the backbone of an organization's operations.

**Teaching and Examination Scheme**

| Theory Hours | Tutorial Hours | Practical Hours | ESE | IA | CSE | Viva | Term Work |
|---|---|---|---|---|---|---|---|
| 3 | 0 | 0 | 50 | 30 | 20 | 0 | 0 |

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DR. RAJENDRASINH BAHADURSINH JADEJA
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| Contents : Unit | Topics | Contact Hours |
|---|---|---|
| 1 | **Organisations and Computing**<br>Introduction, Modern Organisation-IT enabled, Networked-Dispersed- Knowledge Organisation, Information Systems in Organisations- what are information systems?, Brief history of computing, ENIAC: Way to commercial computers- Advent of artificial intelligence- advent of personal computing, Free Software Movement- Advent of Internet, The role of internet- Internet and Web: they are different-the internet changes everything., Strategic business use of IS:Interdependence between organization and IS, IS strategies for competitive , advantage using Porter's Five Forces Model and Value Chain Model. | 6 |
| 2 | **Managing Information Systems in Organisations**<br>Introduction, Managing in the Internet Age, Managing Information Systems in Organizations, IT Interaction Model, Challenges for Managers - Information to Build Information? -To spend them on information systems?, Challenges for Managers - What capabilities should be built with information systems? -How should services be centralized?, Challenges for Managers - What level of safety is required? What is the technology road map for the organization? | 5 |
| 3 | **Competing with IT**<br>Introduction, competitive environment of business , Partnership for mutual benefit -Bargaining power of suppliers, Bargaining power of buyers and options, Barriers to entry-risk of industry regulations, IT, using competition to compete at low cost | 5 |
| 4 | **Decision Support Systems**<br>Introduction, Understanding DSS, MIS and DSS-Decision making-types of decisions, Analytics and Business Intelligence, BI techniques | 4 |
| 5 | **Managing Data Resources**<br>Introduction , The Need for Data Management, History of data use, Challenges of Data Management, data independence- reduced data redundancy, data consistency- data access- data administration-managing concurrency, managing security- recovery from crashes-application development, Database Concepts- fields, records and files- basic architecture, Data Warehouses- data mining uses | 6 |
| 6 | **Managing IT Function**<br>Introduction, challenges of managing IT function, modern IT environment - centralization vs. decentralization, IT security - technology selection, vendor management - vendor selection, vendor contracts and service levels – relationship management - vendor retention or termination | 4 |

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| Contents : Unit | Topics | Contact Hours |
|---|---|---|
| 7 | **Ethical issues**<br>Ethical issues: introduction, key issues, Ethical issues- privacy - workplace monitoring , Ethical issues- power over users, information security: First Line of Defense - People / Staff, information security - Second Line of Defense - Technology, Prevention, Detection and Response to Authority, Contemporary / emerging technologies- Cloud and Mobile Computing , Contemporary / emerging technologies - E-commerce, m-commerce, Contemporary / emerging technologies -Internet of things | 8 |
| 8 | **Practical**<br>Students should emulate an organization and its processes, develop a hypothetical information system, Students should study information systems adapted by various business institutions, Students should study information systems adapted by various business institutions | 4 |
| **Total Hours** | | **42** |

**Textbook :**

1 Information Systems: Managing the Digital Firm Management, Kenneth Laudon,, Pearson, 1991

2 Management Information systems, W.S. Jawadekar, McGraw Hill Education India, 2013

**References:**

1 Essentials of Management Information Systems, Essentials of Management Information Systems, Kenneth Laudon,, Pearson, 1991

2 Information Technology for Management: Transforming Organizations in Digital Economy, Information Technology for Management: Transforming Organizations in Digital Economy, EfraimTurban,, Wiley, 1995

**Suggested Theory Distribution:**

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

| Distribution of Theory for course delivery | | | | | |
|---|---|---|---|---|---|
| **Remember / Knowledge** | **Understand** | **Apply** | **Analyze** | **Evaluate** | **Higher order Thinking / Creative** |
| 10.00 | 25.00 | 25.00 | 25.00 | 10.00 | 5.00 |

**Instructional Method:**

1 The internal evaluation will be done on the basis of continuous evaluation of students in the laboratory and class-room.

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**Instructional Method:**

2 Practical examination will be conducted at the end of the semester for evaluation of performance of students in laboratory

3 Students may use supplementary resources such as online videos, NPTEL videos, e-courses, Virtual Laboratory, etc.

4 The course delivery method will depend upon the requirement of content and need of the students. The teacher in addition to conventional teaching method (Chalk and Talk) may use any of the tools such as demonstration, role play, Quiz, brainstorming, Flipped class, Project based learning, Collaborative learning, MOOCs etc. for effective teaching.

**Supplementary Resources:**

1 https://www.inc.com/encyclopedia/management-information-systems-mis.html

2 https://www.smartsheet.com/management-information-systems