CS011904:: Introduction to Informatics   **L-T-P-Cr: 3-0-0-3**

Pre-requisites: NIL

Objectives/Overview:
- Define Information systems and their usages in businesses
- Introduce and analyze the ethical considerations of information systems.
- Discuss the security of information systems and data acquisitions and managements in information systems.

Course Outcomes – After completing this course, students should be able to:

CO-1. *Recall* Students will effectively learn the basics of information system and its different usages

CO-2. *Define* and *formulate* Students will possess the ability to evaluate and compare different information system in terms of its privacy concerns, security vulnerability.

CO-3. *Design* and *develop* Students will develop a critical understanding of the development fo information systems for business involving B2B and B2C with social media as a tool.

CO-4. *Analyze* and design students will apply information system management techniques to real-world application scenarios.

CO-5. *Distinguish* Students will gain awareness of the ethical implications related to Information systems.

Course Outcomes–Cognitive Levels–Program Outcomes Matrix –

[H: High relation (3); M: Moderate relation (2); L: Low relation (1)]

Course Outcomes	Program Outcomes											
	PO-1 (Engineering knowledge)	PO-2 (Problem analysis)	PO-3 Design/development of solutions)	PO-4 (Conduct investigations of complex problems)	PO-5 (Modern tool usage)	PO-6 (The engineer and society)	PO-7 (Environment and sustainability	PO-8 (Ethics)	PO-9 Individual and team work)	PO-10 Communication)	PO-11 (Project management and finance)	PO-12 (Life-long learning)
CO-1	3	3	3	3	2	3			3	3	1	3
CO-2	3	3	3	3	2	3		1	3	3	1	3
CO-3	3	3	3	3	3	3			3	3	1	3
CO-4	3	3	3	3	2	3			3	3	1	3
CO-5	3	3	3	3	3	3	2	1	3	3	1	3
CO-6	3	3	2	1	3	1	1	1	3	3	2	2

UNIT 1   Lecture: 6
Introduction to Informatics: Computer-Based Information Systems, Impact of Informatics, Business Processes, Business Process Improvement, Business Process Reengineering, and Business Process Management, Business Pressures, Organizational Responses, and Information Technology Support, Competitive Advantage and Strategic Information Systems, Business−Information Technology Alignment

UNIT 2   Lecture: 8

Ethics and Privacy: Ethical Issues, Privacy, Information Security: Introduction to Information Security, Unintentional Threats to Information Systems, Deliberate Threats to Information Systems, Protecting Information Resources, Information Security Controls

UNIT 3   Lecture: 6

Data and Knowledge: Management, Managing Data, Big Data, The Database Approach, Database Management Systems, Data Warehouses and Data Mart, Knowledge Management,

UNIT 4   Lecture: 8

E-Business and E-Commerce: Overview of E-Business and E-Commerce, Business-to-Consumer (B2C) Electronic Commerce, 7.3: Business-to-Business (B2B) Electronic Commerce, Ethical and Legal Issues in E-Business
Social Computing: Web 2.0, Fundamentals of Social Computing in Business, Social Computing in Business: Shopping, Social Computing in Business: Marketing, Social Computing in Business: Customer Relationship Management, Social Computing in Business: Human Resource Management

UNIT 5   Lecture: 8

Information Systems: Transaction Processing Systems, Functional Area Information Systems, Enterprise Resource Planning Systems, ERP Support for Business Processes, Reports,
Customer Relationship Management and Supply Chain Management: Customer Relationship Management, Operational Customer Relationship Management Systems, Analytical Customer Relationship Management Systems, Other Types of Customer Relationship Management Systems, Supply Chains: Supply Chain Management, Information Technology Support for Supply Chain Management

UNIT 6   Lecture: 8

Business Analytics: Managers and Decision Making, What Is Business Intelligence? Business Intelligence Applications for Data Analysis, Business Intelligence Applications for Presenting Results Business Intelligence in Action: Corporate Performance Management
Acquiring Information: Systems and Applications, planning for and Justifying IT Applications, Strategies for Acquiring IT Applications, The Traditional Systems Development Life Cycle, Alternative Methods and Tools for Systems Development

Textbook:
1. R. Kelly Rainer Jr., Brad Prince, Casey Cegielski: Introduction to Information Systems Supporting and Transforming Business, Wiley Fifth Edition
2. James A. O'Brien, George M. Marakas, Introduction to Information Systems, McGraw Hill Irwin, Fifteenth Edition