

# GUJARAT TECHNOLOGICAL UNIVERSITY

## B.E Semester: 3 Information Technology

Subject Code 131601

Subject Name BUSINESS INFORMATION SYSTEMS

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Sr.No	Course content
1.	Business and Management Information : Business Organization -Business Work Area-Business Information-Levels of Information-Categories of Information-Quality of Information-Management Information -Management Reports-System Theory-Deterministic and Probabilistic Systems-Closed and Open Systems-Regulation in Systems Open-loop Systems-Data systems and Users-User requirements-User/D.P. staff cooperation- User knowledge and training – Personnel – Steering committees
2.	Computer in Business : Development of Data Systems – Data transmission and real time D.P. – Minicomputers – Microcomputers – Software – Networks – Office automation – Future developments – Structure of computer – Multiprocessing – Backing storage – Terminals – Computer configurations – Reliability of computer configurations – Data representation - Minicomputers – Characteristics of minicomputers – Microcomputers – Memory – Processors – Backing storage – Visual display unit (VDU) – Printers – Programming – Operation systems – Software – Large microcomputers – Portable microcomputers –Distributed processing – Data switching –Fiber optics – Real time and on line systems – Office automation – Word Processing – Electronic Mail – Videotext – Electronics fund transfer (EFT)
3.	Data Capture and Computer Input / Output Keyboards and Pointing Devices – Optical Character Recognition – Capturing Pictures, Sounds and Video – Storing and Retrieving Data – Paper and Micro graphics – Magnetic Tapes and Disks – Optical Disks – Flash Memory – Screen Outputs – Paper Outputs – Audio Outputs
4.	Computer Files and Databases : Business Files – Data Storage Media – Direct Access File Organization – Data Modeling: Documenting Information Architecture – User's View of a Computerized Database – Database Management Systems (DBMS) – Text Database and Hypertext – Evaluating Information Used in Business Processes – Models as Components of Information Systems
5.	Systems Investigation : General aspects – Planning the Systems Investigation – User's Information Requirements – Usage and Flow of Data – Current Activities – User Department Staffing – Current System Costs – Entity sets – Fact Finding Methods

6.	Systems Design : Design Philosophy – Code Number Systems – Output Subsystem – Logical File Subsystem – Input Subsystem – System Architecture – Security and Audit – Computer Job Scheduling – Costs and Savings of New System – System Documentation
7.	System Implementation : D.P. Staff – System Testing – Database Creation – Changeover Procedure – System presentation – System Appraisal and Maintenance – Data Processing Resources
8.	Information System Security and Control : Threat of Project Failure – Threat of Accidents and Malfunctions – Threat of Computer Crime – Factors that Increase the Risks - Methods for Minimizing Risks
9.	Communication, Decision Making and Different Types of Information System : Basic Communication Concepts-Personnel, Impersonal and Anonymous Communication-Time, place and Direction of Communication—Data Communication-Data Transmission-Types of Networks-Basic Decision Making Concepts-Steps for Decision Making Process-Transaction Processing System
10.	Programming Intelligence into Machine : Introduction to : Natural Language Processing- Expert Systems-Neural Networks-Fuzzy Logic-Case Based Reasoning-Intelligent Agents.
11.	Inventory Management (INMANS) System Design
12.	Account Payable System (ACPAYS) Design
13.	Payroll System (PAYSY) Design

### Reference Books:

1. Business Data Systems – H. D. Clifton
2. Business Systems for Microcomputers – William D. Haueisen & James L. Camp
3. System Analysis and Design- James A Semm
4. SADSE with Solved Case Studies by S.Parthasarathy & B.W. Khalkar