

Mercer County Community College

Division of Business and Technology

IST 251

Management of Computer Technology

COURSE DESCRIPTION

Situations facing a typical information systems manager: Security, Planning, Personnel, Scheduling, Training, Electronic Commerce, Hardware and Software Upgrades. The course is based on the fundamental premise that the major role of information technology is to facilitate problem solving, increase quality of information and its availability, provide solutions to business problems, and enabling business process reengineering. Use of the WEB, the Internet, intranets, extranets, and electronic commerce in organizations. Explore where information systems are going and the impact on education and business.

Texts: Title: **Information Technology for Management**
Author: **Turban, Mclean, Weatherbe**
Publisher: **John Wiley & Sons, Inc.**
Edition: Latest

Recommended Supplementary Texts:

Title: To Be Specified By Instructor
Author:

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Author:

Prerequisite/Co-requisite: NET212 (Current Operations Topics) with a minimum grade of C.

Credits: 3

Class Hours: 3

Lab Hours: 0

Food and Drink are strictly prohibited in Classrooms as per Health and Safety Laws. Students may not bring in chemicals or cleaning fluids without the appropriate MSD sheets.

Course Coordinator: A. Magson

Latest Review: Fall 2003

I. GENERAL OBJECTIVES

To provide Computer Systems and Networking Technology students with:

- An understanding of Information Resources
- Familiarization with new technologies (hardware and software)
- An introduction to approaching information systems as tools for the profitability and efficiency of the enterprise.
- Utilizing the case study approach to develop innovative approaches utilizing information technology to address the challenges facing the enterprise in day-to-day operations and strategic positioning within the marketplace.

II. TESTS

Three Unit tests and a final examination

III. GRADE EVALUATION

Homework	25%
Final Project	15%
Three Unit Tests	45%
Final Exam	15%

IV. UNIT ONE

Reading: Chapters 1, 2, 3, & 4 of the text.

Objectives: The student should be able to

1. Define or recognize the definition of the following terms:

business pressures	group support system
business process reengineering	information
computer based information system	information architecture
electronic commerce	information infrastructure
EC	knowledge
enterprise resource planning	knowledge workers
EDI	legacy system
electronic data interchange	MIS
extranet	office automation system
information system	periodic reports
IS	strategic system
information technology	transaction processing
IT	competitive advantage
internet	competitive intelligence
intranet	cost leadership
networked enterprise	global business drivers
networked computing	information content
TQM	response management
total quality management	strategic information system
virtual corporation	strategic alliances
ad hoc reports	business process
application program	business process reengineering
client/server architecture	cycle time reduction
cooperative processing	extranet
data	organizational learning
decision support system	process innovation
DSS	reengineering
distributed processing	supply chain
enterprise wide computing	
enterprise wide system	
expert system	

2. List the major pressures in the business environment.
3. List the major critical response activities used by organizations.
4. Discuss the relationships between increased social responsibility and IT.
5. Discuss the relationship between empowerment of employees and TQM.
6. Discuss the evolution of information systems.
7. Contrast periodic, ad hoc, and exception reports.
8. Contrast information architecture and information infrastructure.
9. Contrast process innovation with incremental improvement.
10. Discuss the changes in the world of work as one moves from conventional to BPR.
11. Explain why BPR often requires inductive rather than deductive thinking.
12. Compare TQM and reengineering.
13. Discuss the three R's of reengineering.

UNIT TEST

Chapters 1-4

V. UNIT TWO

Objectives:

- Understand the functions and uses of computer hardware available in to the marketplace.
- Understand the functions and used of computer system and application software available in the marketplace.
- Understand the elements required for effective human-computer communication.
- Understand the composition, the requirements for integrity, and the quality issues related to business data
- Understand the elements of data communication and maintaining an effective enterprise network.

Reading: Chapters 5, 6, 7, 8, & 9 of the text.

Topics:

1. Survey of current computer hardware available - Can the enterprise gain competitive advantage and operational efficiency by implementing new technology? Is it cost-effective?
2. Survey of Computer software - Should the enterprise purchase or develop software? What is system software? What is application software?
3. User interfaces - How can the enterprise implement better user-friendly and intuitive information systems?
4. What are the elements of business data? How can the enterprise safeguard it quality and deliver the quantity it requires on a timely basis?
5. Enterprise networks and data communications - Can the enterprise keep in touch with its clients and its productive facilities - effectively and economically?

LABS: None

UNIT TESTS: Chapters 5-9 (30 %)

LAB EVALUATIONS: None

VI. UNIT THREE

OBJECTIVES:

- Understand the requirements to design and or modify the enterprise information systems architecture.
- Understand how the information infrastructure supports the information systems architecture.
- Understand the centralized versus non-centralized computing.
- Understand end-user & enterprise computing and the information warehouse.
- Understand the issues involved in IT outsourcing.
- Familiarization with the guidelines, requirements, and challenges of IS planning.
- Understand the issues and the methodology required for information systems analysis and design.

Reading: Chapters 10, 11, & 12 of the text.

Topics:

1. Distributed processing and risk.
2. Overview of information technology architecture.
3. Data warehousing - concepts, benefits, and data integrity issues.
4. System development life cycle.
5. Project planning fundamentals - time requirements, resource allocation, & cost justification.
6. Basic 4-stage model of IS planning.
7. Re-engineering for profit and efficiency - focusing on the critical processes.

LABS: None

UNIT TESTS: Chapters 10-11-12 (30%)

LAB EVALUATIONS: None

FINAL EXAM: Chapters 1-12 (10%)