

Course Outline for CIS 50

INTRODUCTION TO COMPUTING INFORMATION TECHNOLOGY

Effective: Fall 2020

I. CATALOG DESCRIPTION:

CIS 50 — INTRODUCTION TO COMPUTING INFORMATION TECHNOLOGY — 3.00 units

A comprehensive introduction to the concepts of management and information systems used in business and similar organizations. Covers the role of information systems in business, the need for data and information, how computers are used in business and other organizations to provide information. Focus on information systems, database management system, networking, e-commerce, ethics and security, computer system hardware and software components. Students will interactively solve applied problems utilizing software productivity tools such as: word processors, spreadsheets, databases, presentation, WWW, and programming languages. Introduce the analytical, written and oral communication skills necessary to communicate effectively in a business computing environment.

3.00 Units Lecture

Grading Methods:

Letter or P/NP

Discipline:

- Computer Information Systems

	MIN
Lecture Hours:	54.00
Expected Outside of Class Hours:	108.00
No Unit Value Lab	18.00
Total Hours:	180.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

- A. Describe existing and emerging technologies and their impact on organizations and society;
- B. Describe and evaluate the development and use of information systems in business;
- C. Solve common business problems using appropriate Information Technology applications and systems;
- D. Demonstrate familiarity with the computing environment, including the hardware, operating system, the user interface, and applications;
- E. Demonstrate the possible solution(s) for simple business applications by applying productivity tools including, word processing, spreadsheets, databases, and presentation software;
- F. Investigate current issues in computer environments such as security, society and business ethics over the use of computer data, and organization of data processing resources within the organization; and
- G. Describe the capabilities, use, and characteristics of programming languages in a computer environment.

V. CONTENT:

- A. Information systems concepts
 1. Digital Literacy
 2. Computing Platforms
- B. Communications and network concepts, systems and applications
 1. Telecommunications
 2. Infrastructure
 3. Cellular Network
 4. Wireless Data Communication Network
 5. LAN, WAN
- C. Internet usage; e-business systems
 1. Internet Technologies
 2. Web Technologies
 3. Cloud Computing
 4. Web Resources
 5. Internet Services

- 6. Internet Security
- D. System infrastructure concepts
 - 1. Hardware: Processing, Storage, I/O
 - 2. Software: System, Application
- E. System and application software programs and concepts
- F. Information systems security, crime and ethics
 - 1. Machine Level
 - 2. Network Security
 - 3. Internet Security
- G. Types of information systems and their role in business
 - 1. Transaction processing
 - 2. Decision Support
 - 3. Database management
 - 4. Office Information systems
- H. Systems development life cycle
 - 1. Planning
 - 2. Analysis
 - 3. Design
 - 4. Implementation
 - 5. Support and Security
- I. Organization and management of structured and unstructured data using spreadsheets and database tools
- J. Practical exercises in electronic spreadsheet development
- K. Practical exercises in using database software
- L. Practical exercises in Internet technologies
- M. Practical exercises in programming
- N. Practical exercises using word processing software

VI. METHODS OF INSTRUCTION:

- A. **Lecture** - Lecture and classroom discussion with demonstrations
- B. **Lab** - Lab experience: Hands-on lab assignments
- C. **Demonstration** - Computer demonstrations with overhead display panel
- D. **Discussion** - Discussion boards
- E. **Audio-visual Activity** - PowerPoint presentations
- F. Periodic examinations
- G. **Classroom Activity** - Read text and other supplemental sources (example, Internet sites)

VII. TYPICAL ASSIGNMENTS:

- A. Reading
 - 1. Assigned reading from the textbook. For example:
 - a. Read Concepts Chapter 1: Digital Technologies
 - b. Read Concepts Chapter 2: Hardware
 - 2. Read the U.S. Department of Labor Bureau of Labor Statistics Occupational Outlook Handbook Web Developer jobs
- B. Hands-on lab assignment, such as:
 - 1. using word processing software to create a memo
 - 2. using a spreadsheet program to create a budget
 - 3. using a database to add, delete, find and edit records
 - 4. using a programming language to create a simple program
 - 5. create two short papers, one original, one plagiarized, upload and review results from Turnitin.com
 - 6. create a webpage and upload to a host site
- C. Research, writing project
 - 1. Purchase of new computer
 - a. Analysis of wants and needs
 - b. List of hardware, software, peripherals
 - c. Comparison shopping
 - 2. Design a cell phone using the following games: <https://edheads.org/>. To complete this project, you will:
 - a. Analyze user requirements
 - b. Design a new cell phone
 - c. Write a user's manual--one pages user manual appropriate for your audience
 - d. Create a PowerPoint presentation document your cell phone analysis, design, and results
 - e. Summarize your results in a 3-5 minute video and audio presentation

VIII. EVALUATION:

Methods/Frequency

- A. Exams/Tests
 - chapter exams
- B. Quizzes
 - 1- 5 frequent quizzes
- C. Oral Presentation
 - student project, create presentation, record via software for presentation
- D. Class Participation
 - Active participation
- E. Class Work
 - 1-5 student group work
- F. Home Work
 - weekly reading
- G. Lab Activities
 - weekly hands-on assignments

IX. TYPICAL TEXTS:

- 1. Parsons, June, and Dan Oja . *New Perspectives on Computer Concepts 2018, Comprehensive*. 20 ed., Cengage Learning, 2019.
- 2. Vermaat, Misty. *Discovering Computers ©2018: Digital Technology, Data, and Devices*. 1st ed., Cengage Learning, 2018.
- 3. Rainer, R. *Introduction to Information Systems*. 7th ed., Wiley, 2017.

X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. Mobile storage device: USB, cloud
- B. Access to the World Wide Web with any major Web browser
- C. MS Office software: Word, Excel, Access, PowerPoint

