Course Outline

2026-2027 Catalog

CSCI 2 - Business and Computer Information Systems

Catalog Description

Transfer Status: CSU/UC

Unit(s): 3.00

Lecture: 34.00 Contact hours/68.00 Out of class hours/102.00 Total hours/2.00 Unit(s)

Lab: 51.00 Contact hours/0.00 Out of class hours/51.00 Total hours/1.00 Unit(s)

Total: 85.00 Contact hours/68.00 Out of class hours/153.00 Total hours/3.00 Unit(s)

Course Description: This course is an examination of information technologies and information systems used in business. It focuses on information systems, database management systems, networking, ethics and security, computer hardware, and software applications and development. It applies these concepts and methods through hands-on projects developing computer-based solutions to business problems. (C-ID ITIS 120).

Objectives

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

1. Describe existing and emerging information technologies and systems, and their impact on organizations and society.
2. Discuss the development and use of information technologies and information systems in organizations.
3. Solve common business problems using appropriate Information Technology applications and systems.

Course Content

Topic Titles / Suggested Time Topic

Lecture

Topics	Lec Hrs
Information systems and information technology concepts	3.00
Digital communication and networking concepts, systems, and applications, including machine-to-machine communication (IoT)	4.00
Programming language categories, concepts, and algorithms	2.00
System and application software categories and concepts	4.00
Computer and system infrastructure concepts, with a focus on Cloud Computing	2.00
Cybersecurity, cybercrime, and ethics concepts	4.00
Types of information systems and technologies used in organizations	3.00
Systems development life cycle concepts and activities	2.00
Organization and management of structured and unstructured data using spreadsheets and database tools	4.00
Practical exercises in electronic spreadsheet development	2.00
Practical exercises in using database software	2.00
Practical exercises in Internet technologies	2.00
Total Hours:	**34.00**

Lab

Topics	Lab Hrs
Digital communication and networking concepts, systems, and applications, including machine-to-machine communication (IoT)	6.00
System and Application software programs and concepts	6.00
Cybersecurity, cybercrime, and ethics concepts	6.00
Systems development life cycle concepts and activities	3.00
Practical exercises in electronic spreadsheet development	12.00
Practical exercises in using database software	12.00
Practical exercises in Internet technologies	6.00
Total Hours:	**51.00**

Methods of Instruction

A. Demonstrations
B. Group Discussions
C. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
D. Lecture
E. Multimedia Presentations

Methods of Evaluation

A. Demonstration
B. Class participation
C. Lab Projects
D. Written Assignments
E. Written or Oral Examinations
F. Practical Examinations

Examples of Assignments

Reading Assignments

1. Read the chapter in your book on communications and networks. Prepare a list of five different ways that computer communications are used in business. Be prepared to share your list in class discussion.
2. Read the chapter in your text on ethics and privacy, paying particular attention to the description of the WikiLeaks case. Come to class prepared to discuss the four ethical standards presented in the chapter, and your thoughts about the ethical issues raised by the WikiLeaks case.

Writing Assignments

1. You have been asked to provide a recommendation to a local business of ten employees that is planning to upgrade its computers, which are now more than five years old. Prepare a 3-5 page report providing recommendations for computers at three different price levels: less than $750, between $750-$1500, and more than $1500. In your report, list the advantages and disadvantages of the computers you recommend at each price level, and provide a final recommendation of what you consider to be the best model for the business.
2. In a two page annotated outline, list five different Web 2.0 technologies and provide an example of how each can be used in a business setting. For each technology in your list, identify one website (include the URL) that uses the technology.

Out-of-Class Assignments

1. Using the small business scenario provided by the instructor, prepare a design for a database to manage the inventory system for the business. In your design, include a list of tables (including the fields), forms, and reports that will be needed for a minimal inventory management system.
2. Following your class tour of our department's computer, server, and networking infrastructure, prepare a map (you may hand-draw or use a graphics application) of our classroom, including all client workstations, servers, and printers and their connections to the network.

Recommended Materials of Instruction

Rainer, R. Kelly, Prince, Brad. (2021). Introduction to Information Systems. *Wiley, 9th.* 978-1-119-76750-3.
Parsons, June Jamrich. (2022). Computer Concepts: Comprehensive. *Cengage, 21st.* 9780357674611.
Evans, Alan, Martin, Kendall, Poatsy, Mary Anne. (2019). Technology In Action Complete. *Pearson, 16th.* 9780135435199.

Minimum Qualifications

Computer Science (Masters Required)
Computer Information Systems

Created/Revised by: Sathrum, Luke
Date: 05/02/2022