CIS C205: PRINCIPLES OF INFORMATION SYSTEMS

Item	Value
Curriculum Committee Approval Date	11/17/2023
Top Code	070200 - Computer Information Systems
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Students will explore how technology, organizations, and people create an information system to support business decisions. The course introduces key components of information systems, including hardware, software, data security and management, networks, privacy, and people. Students will understand how business resources align with technology plans and the impact of ecommerce on business productivity and customers. The practical application of these concepts and methods will be incorporated through hands-on projects to develop computer-based solutions to real-world business problems. ADVISORY: CIS C105. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Demonstrate the use of information systems to complete a given business task.
2. Apply the appropriate action for a potential cybersecurity risk given a business scenario.
3. Construct a report about social media in the business setting derived from multiple Internet resources.

Course Objectives

• 1. Describe the use of information systems in business environments and how individuals and society are impacted.
• 2. Describe information systems and their use in business operations.
• 3. Identify software applications and enterprise platforms commonly used in business office settings.
• 4. Discuss the use of data for decision-making and presentation to inform others.
• 5. Demonstrate the application of data analytics to improve business processes and/or team productivity.
• 6. Define basic cyber hygiene and continuous learning about technology/security concepts.
• 7. Define privacy and confidentiality in business processes related to the use of technology.
• 8. Describe basic office technology (hardware, software, Bring Your Own Device (BYOD), components, and appropriate use policies).
• 9. Explain the practical application of Internet of Things devices, business process automation, and artificial intelligence in business.
• 10. Compare Internet resources to differentiate between the various types of sites on the World Wide Web.
• 11. Describe netiquette and the use of social media in the business context for Business to Business (B2B) and Business to Consumer (B2C).

Lecture Content

Information Systems: People, Technology, Processes, and Structure Managers Role in Information Systems Types of Information Systems Secure Information Systems The Confidentiality, Integrity, and Availability (CIA) security triad Types of Cyberattacks Corporate and Individual Accountability Ethical Decision Making Data Protection and Privacy Hardware and Software Input and Output Devices Corporate Responsibility in Computing System and Application Software Database Systems and Data Management Database Fundamentals Data Management and Data Governance Business Intelligence: Big Data and Analytics Data in Business Settings Business Intelligence for Decision Making Networks: An Interconnected World Network Fundamentals Web Applications Intranets and Extranets Cloud Computing and the Internet of Things Cloud Technology Business Benefits of Internet of Things (IoT) E-Commerce E-Commerce Categories E-Commerce Business Applications Technology to Support E-Commerce Enterprise Systems Definition of Enterprise Systems Data Access across the Enterprise AI and Automation Defining Artificial Intelligence Components of Artificial Intelligence (AI) Defining Natural Language Processing in Machine Learning Strategic Planning and Project Management Defining Business Strategies Setting Information System Organization Strategy Organizational Culture Project Management System Acquisition and Development Defining Waterfall System Development Process Software as a Service

Method(s) of Instruction

• Lecture (02)
• DE Online Lecture (02X)
• Self-Paced (SP)

Instructional Techniques

Learning strategies might include lecture, one-on-one interaction, small-group activities, and hands-on demonstration. Student evaluation methods might include computerized quizzes, computerized tests, discussion forums, and hands-on assignment demonstration.

Reading Assignments

Read about Information Systems principles in business and society. Read about Technology Infrastructure. Read about Business Information Systems. Read case studies about Planning, Implementing, and Managing Information Systems.

Writing Assignments

Written assignments based on security and computer concepts. Discussions based on e-business and information systems used in business. Written assignments on organizations use of information systems to make business decisions. Written assignment on using data analytics to find solutions to business problems. Discussion about sources of information, fact checking and use of social media in the business setting. Written assignment of plan or policy used to select new technology for a business.

Out-of-class Assignments

Quizzes to test understanding of Information Systems use in business and organizations. Coastline Library Workshop on Online Privacy and Security.

Demonstration of Critical Thinking

Students will demonstrate use of business intelligence and analytics to find soluctions to a business problem. Students will evalute internet sources to create a report about social media in the business setting.

Required Writing, Problem Solving, Skills Demonstration

Students will demonstrate writing and problem-solving skills through written exercises based on business scenarios and case studies. Students will demonstrate skills through discussion and report writing.

Eligible Disciplines

Computer information systems (computer network installation, microcomputer ...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Computer service technology: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Stair, R., Reynolds, G. Principles of Information Systems, 14 ed. Boston: Cengage, 2021

Other Resources

1. Coastline Library 2. White papers, security reports, and articles are available at no charge to all students at multiple sites as recommended by the instructor.