CS 5 Course Outline as of Summer 2017

CATALOG INFORMATION

Dept and Nbr: CS 5   Title: COMPUTER LITERACY
Full Title: Computer Literacy
Last Reviewed: 5/8/2023

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	1.00	4	Lab Scheduled	17.50
		Contact DHR	0		Contact DHR	0
		Contact Total	4.00		Contact Total	70.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00   Total Student Learning Hours: 175.00

Title 5 Category: AA Degree Applicable
Grading: Grade or P/NP
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:
Formerly: CIS 5

Catalog Description:
Designed for the transfer student and/or the person wanting a broad knowledge of computer concepts. No previous experience with computers is required or assumed. This course presents an overview of computers in our world today, how they work, how they are used and their impact on society. Students will be introduced to the Internet and World Wide Web, basic programming concepts and productivity software including word processing, spreadsheet, presentation and database software.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
Description: Designed for the transfer student and/or the person wanting a broad knowledge of computer concepts. No previous experience with computers is required or assumed. This course presents an overview of computers in our world today, how they work, how they are used and

their impact on society. Students will be introduced to the Internet and World Wide Web, basic programming concepts and productivity software including word processing, spreadsheet, presentation and database software. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment:
Transfer Credit: CSU;UC.
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

			Effective:	Inactive:
AS Degree:	**Area**			
	B	Communication and Analytical Thinking	Fall 1983	
CSU GE:	**Transfer Area**		Effective:	Inactive:
IGETC:	**Transfer Area**		Effective:	Inactive:

CSU Transfer:	Transferable	Effective:	Fall 1983	Inactive:	
UC Transfer:	Transferable	Effective:	Fall 1983	Inactive:	

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Recognize the capabilities and limitations of computer technology, and the theoretical foundations of computing.
2. Critically assess the social and ethical implications of computer technology in their daily life.
3. Improve problem solving and critical thinking through the application of scientific knowledge using hands-on activities.

Objectives:
Upon completion of the course, students will be able to:
1. Identify the components and function of the hardware used in a computer system.
2. Describe the function of system software.
3. Describe the function of application software.
4. List the steps in systems analysis and design.
5. Describe the popular programming languages and the process of developing computer software.
6. Create a simple computer program.
7. Analyze the impact of computer technology and its ethical implication on society.
8. Demonstrate basic proficiency of productivity software, including word processing, spreadsheet, presentation, database and multimedia software.
9. Demonstrate proficiency in electronic communications technology.
10. Explain basic computer networking concepts and architecture.

11. Use the Internet and World Wide Web to perform research.
12. Create a basic Web page.
13. Demonstrate proficiency in social networking.
14. Discuss computer security and its importance for business and personal use of computers.

Topics and Scope:

1. Computer Literacy as a Necessary Skill in the 21st Century
   a. Becoming a Savvy Computer User and Consumer
   b. Computers in Today's Careers
   c. Understanding the Challenges Facing a Digital Society
2. The History of Computer Technology
3. Computer Hardware
   a. Input Devices
   b. Processing (System Unit)
      i. Central Processing Unit
      ii. The Machine Cycle
      iii. Random Access Memory
   c. Output Devices
   d. Storage Devices
4. Using the Internet and World Wide Web
   a. Communicating Through the Internet: E-Mail and Other Technologies
   b. Social Networking
   c. Web Entertainment: Multimedia and Beyond
   d. Conducting Business over the Internet: E-Commerce
   e. Managing Malware and Online Annoyances
   f. Accessing the Web: Web Browsers
   g. Searching the Web: Search Engines
   h. The Internet and How It Works
   i. The Cloud
   j. The Future of the Internet
5. Information Technology Ethics
6. Application Software
   a. Word-Processing Software
   b. Spreadsheet Software
   c. Presentation Software
   d. Database Software
   e. Graphics and Multimedia Software
   f. Web Design Software
7. System Software
   a. Operating Systems
   b. Utility Programs
   c. File Management
8. Computer Networking
   a. Networking Fundamentals
   b. Network Architectures
   c. Network Components
   d. Wireless Networks
   e. Personal Area Networks
9. Computer Security
   a. Computer Threats (Hackers, Viruses)
   b. Computer Safeguards (Antivirus Software and Other Security Measures)

10. Mobile Computing
    a. Mobile Computing Devices
    b. Portable Media Players
    c. Smartphones and mobile devices
    d. Notebooks
11. Software Programming
    a. The Binary Numbering System
    b. Low Level Programming Languages
    c. High Level Programming Languages
12. Databases and Information Systems
    a. Database Types
    b. Data Mining and Data Warehouses
    c. The Systems Development Lifecycle
    d. Systems Analysis

Assignment:

1. Read approximately 30 pages per week from the textbook.
2. Written homework and reading reports that review recently-covered topics.
3. Problem solving exercises requiring the use of spreadsheets and database management software.
4. Complete laboratory exercises in operating systems and word processing, spreadsheets, database management, and other application software.
5. Individual and/or team projects may include research and write-up of computer related articles on the web or technology magazines, interviews and reports, writing a basic program, team presentations on current trends in technology.
6. Quizzes, midterm, and final examinations

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework and reading reports	Writing 20 - 65%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Problem solving exercises	Problem solving 5 - 20%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Projects	Skill Demonstrations 5 - 20%

Exams: All forms of formal testing, other than skill performance exams.

2-4 Quizzes, midterm, and final examination	Exams 20 - 65%

Other: Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation	Other Category 0 - 10%

Representative Textbooks and Materials:

Technology In Action (10th), Evans, Alan. Poatsy, Mary Anne. Martin, Kendall. Prentice Hall: 2013.

Skills for Success Using Microsoft Office 2013, by Townsend, Kris. Gaskin, Shelley. Hain, Catherine. Murrewolf, Stephanie. Pearson Publishing: 2013.