COURSE SYLLABUS

LAST REVIEW	Fall 2022
COURSE TITLE	Computer Concepts and Applications
COURSE NUMBER	CIST-0101
DIVISION	Career and Technical Education
DEPARTMENT	CIST
CIP CODE	24.0101
CREDIT HOURS	3
CONTACT HOURS/WEEK	Class: 3 Lab:
PREREQUISITES	None

COURSE DESCRIPTION

Computer Concepts and Applications is designed to demonstrate to the student the various accomplishments, forms of work, and applications a computer can perform. The course includes experience using a variety of projects on the computer. The World Wide Web on the Internet will be explored and integrated into many segments of the course. Computer Concepts and Applications is an introductory computer course that emphasizes the concepts of computing and fundamental vocabulary for computers. No previous knowledge of computer is required.

PROGRAM ALIGNMENT

This course is part of a program aligned through the Kansas Board of Regents and Technical Education Authority. For more information, please visit: https://kansasregents.org/workforce_development/program-alignment

PROGRAM LEARNING OUTCOMES

1. Demonstrates the necessary skills to score at least a 70% in the Network 1 course.
2. Obtain the skills necessary to pass the Certification COMPTIA SEC+ certification.
3. Applies judicious and ethical offensive security techniques using knowledge gained through cyber security coursework.
4. Obtain the skills necessary to pass the NET+ certification.

TEXTBOOKS

http://kckccbookstore.com/

METHOD OF INSTRUCTION

A variety of instructional methods may be used depending on content area. These include but are not limited to lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE

I. Introduction to Computers
   - A. Micros
   - B. Mainframes
   - C. Minis

II. Processing Data on a Computer
   - A. Files
   - B. Records
   - C. Fields
   - D. Bytes
   - E. Bits

III. User Interface to a Computer
   - A. Touch Screen
   - B. Mouse
   - C. Icons
   - D. Voice

IV. The Processor Unit
   - A. CPU
   - B. CU
   - C. ALU
   - D. Registers
   - E. Number System – binary, hexadecimal
   - F. Computer Codes – ASCII EBCDIC

V. Input Devices
   - A. Projects to demonstrate the operation of input devices
   - B. Keyboard
   - C. Screen
   - D. Other

VI. Output Devices
   - A. Project to demonstrate the operation of output devices
   - B. Printers
   - C. Screens
   - D. Other

VII. Auxiliary Storage Devices
   - A. Tape
   - B. Disk
   - C. Other

VIII. File Organization and Databases
- A. Project to demonstrate file organization
- B. Random Processing
- C. Sequential Processing
- D. Database Systems

IX. Operating Systems
- A. Windows
- B. Integrated software
- C. Project to demonstrate integrated software

X. Application Software
- A. Spreadsheets
- B. Word Processing
- C. Database
- D. Graphics
- E. Inventory
- F. Accounts Payable
- G. Payroll
- H. Electronic Mail
- I. Internet

XI. Data Communications
- A. Hardware
- B. Networks
- C. Line Control
- D. E-mail

COURSE LEARNING OUTCOMES AND COMPETENCIES

Upon completion of the course, the student will:

A. Understand specifications and configurations of computer hardware.
1. Illustrate various configurations for hardware components.
2. Define computer hardware concepts and terminology.
3. Identify current and emerging hardware technologies.

B. Understand and identify the major roles of operating systems and system software.
4. Identify advance operating system and utility features.
5. Use advanced operating system and utility features.

C. Identify resources available on the Internet.
6. Define Internet concepts and terminology.
7. Identify current and emerging Internet capabilities.
8. Use current and emerging Internet capabilities.

D. Use word-processing software to create, edit and produce professional looking documents.
   9. Define word processing concepts and terminology.
   10. Create, modify, save, and output professional looking documents.
   11. Use advanced word processing application features.
   12. Create, modify, save, and output professional looking documents.
   13. Use advanced word processing application features.

E. Create spreadsheets and charts to analyze, investigate and/or interpret numerical and financial data to support that problem-solving process.
   14. Use advanced spreadsheet application features.
   15. Define spreadsheet concepts and terminology.

F. Design, create and maintain a database, which produces easy access to information in multiple dimensions.
   16. Define database concepts and terminology.
   17. Design, create, modify, save, query and output database information.
   18. Use advanced database application features.

G. Use presentation software to create, edit and produce professional looking presentations.
   19. Define presentation concepts and terminology.
   20. Create, modify, save, and output professional looking presentations.
   21. Use advanced presentation application features.

H. Understand integration applications software.
   22. Utilize system software to execute a common set of applications.
   23. Define integration concepts and terminology.
   24. Identify current and emerging integration capabilities.
   25. Use current and emerging integration capabilities.

I. Understand ethical and social standards of conduct regarding the use of technology.
   26. Define ethical and social concepts of technology use.
   27. Define ethical and social standards of conduct when using technology.

ASSESSMENT OF COURSE LEARNING OUTCOMES AND COMPETENCIES

Student progress is evaluated through both formative and summative assessment methods. Specific details may be found in the instructor's course information document.

COLLEGE POLICIES AND PROCEDURES

Student Handbook

https://www.kckcc.edu/files/docs/student-resources/student-handbook-and-code-of-conduct.pdf

College Catalog
https://www.kckcc.edu/academics/catalog/index.html

College Policies and Statements
https://www.kckcc.edu/about/policies-statements/index.html

Accessibility and Accommodations
https://www.kckcc.edu/academics/resources/student-accessibility-support-services/index.html.