COURSE SYLLABUS

LAST REVIEW   Spring 2021

COURSE TITLE   UNIX Scripting and Utilities

COURSE NUMBER   CIST-0232

DIVISION   Career and Technical Education

DEPARTMENT   CIST

CIP CODE   11.0801

CREDIT HOURS   3

CONTACT HOURS/WEEK   Class: 3   Lab: 0

PREREQUISITES   CIST-0117 Networking I

COREQUISITES   None

COURSE DESCRIPTION

This course will instruct the student in the hands-on installation of a UNIX operation Systems. The basic commands needed to administrate and manage the UNIX OS using the command line structure will be covered as well. In addition to that, students will be able to describe computer system hardware, software, and development, describe UNIX features and components, access UNIX and implement commands and create UNIX shell scripts.

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. Script management: Develop a bash script managing file.

INSTITUTIONAL LEARNING OUTCOMES
☐ Communication
☐ Computation and Financial Literacy
☒ Critical Reasoning
☒ Technology and Information Literacy
☐ Community and Civic Responsibility
☐ Personal and Interpersonal Skills

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. Computer Systems
    A. Describe systems hardware and peripherals.
    B. Define operating systems, development and applications software.
    C. Outline memory management, disk management and device management.

II. UNIX Features and Components
    A. UNIX versions and standards.
    B. List and describe software components.
        1. Describe the kernel.
        2. Compare and contrast various shell flavors.
        3. Describe commands, utilities and applications.
    C. Describe UNIX Features.
        1. Define portability and device independence.
        2. Define multitasking.
        3. Define multiuser.
        4. Explain the concept of programmable shells.
        5. Explain built-in security.
    D. Explain the file system.
        1. Describe the hierarchical directory structure.
        2. Describe file attributes.
        3. Describe path names.

III. UNIX Access and Commands
    A. Access the system.
        1. Log in to UNIX.
        2. Change passwords.
        3. Log out of UNIX.
    B. B. Utilize UNIX commands.
        1. Manage files and directories.
        2. Manage processes.
        3. Manage devices.
        4. Implement multitasking.
        5. Create and modify data and script files.
        6. Run UNIX utilities.

IV. UNIX Shell Scripts
    A. Employ control structures.
    B. Implement stream input and output.

C. Manage, automate and schedule processes.
D. Develop scripts for networking.

COURSE LEARNING OUTCOMES AND COMPETENCIES
Upon completion of the course, the student will:

A. Describe computer systems.
1. Describe Computer systems.
2. Describe systems hardware and peripherals.
3. Define operating systems, development and applications software.
4. Outline memory management, disk management and device management.

B. Explain, list, and describe software components.
5. Explain, list, and describe software components.
6. Describe the kernel.
7. Compare and contrast various shell flavors.
8. Describe commands, utilities and applications.

C. Describe UNIX versions and standards.
9. Describe UNIX versions and standards.

D. Describe UNIX features.
10. Describe UNIX features.
11. Define portability and device independence.
12. Define multitasking.
13. Define multiuser.
14. Explain the concept of programmable shells.
15. Explain built-in security.

E. Explain UNIX file system.
16. Explain UNIX file system
17. Describe the hierarchical directory structure.
18. Describe file attributes.
19. Describe path names.

F. Describe UNIX access system.
20. Describe UNIX access system
21. Log in to UNIX.
22. Change passwords
23. Log out of UNIX.

G. Utilize UNIX commands.
24. Utilize UNIX commands.
25. Manage files and directories.
26. Manage processes.

27. Manage devices.
28. Implement multitasking.
29. Create and modify data and script files.
30. Run UNIX utilities.

H. Explain UNIX shell Scripts.
31. Explain UNIX shell Scripts.
32. Employ control structures.
33. Implement stream input and output
34. Manage, automate and schedule processes
35. Develop scripts for networking.

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.