MISSOURI WESTERN STATE UNIVERSITY
COLLEGE OF LIBERAL ARTS AND SCIENCES

DEPARTMENT OF COMI'U'I'ER'SCIENCE, MATHEMATICS, AND PHYSICS

COURSE NUMBER: CSC 274
COURSE NAME: Introduction to Unix/Linux

COURSE DESCRIPTION:
An introductory course on UNIX/Linux and its applications. Topics covered include: basic commands and system structures; system tools; output redirection; command line text editing, e-mail and system calls; file system basics; and, basic shell scripting. Basic security issues will also be discussed. The course material is intended to prepare students for versatile use of any UNIX/Linux system and as a foundation for numerous UNIX/Linux certification programs.

PREREQUISITES
A grade of C or higher in CSC 184.

TEXT:
Linux Command Line, Shotts, Edition 12, Ingram, ISBN 9781593273897

COURSE OBJECTIVES :

- Understand the basic history of the Unix operating System.
- Understand the current major implementations of Linux, including Linux, BSD, and OS/X
- Be able to use common linux shell commands
- Be able to use command redirection and pipes
- Understand the advantages and disadvantages of common Linux Desktop environments
- Be able to write scripts using control structures in Bash or other shell languages.

COURSE OUTLINE:

I. Overview
   A. History Of Unix
   B. Major flavors of Unix
      1. Linux
         a) Debian
         b) Ubuntu
         c) RedHat
         d) Fedora
         e) Kali
      2. BSD
      3. OS/X
      4. Android
      5. Chrome
      6. Specialized environments (embedded systems, etc)
   C. Future of Unix

II. Linux Commands

A. Command philosophy
B. Environmental variables
C. Stdin/Stdout
D. Common commands
E. Less common but useful commands
F. Redirection of input and output
G. Pipes
H. /dev/null

III. Shells
A. Bash
B. C-shell

IV. Shell Scripting
A. Basic command-only scripts
B. Variables
C. Control Structures

V. Desktop Environments
A. Gnome (In General)
B. KDE
C. X
D. Wayland
E. Desktops (examples, varies through time)
1. Unity
2. Cinnamon
3. XFCE
4. KDE