

1. *Course number and name*

ENGR 212: Introduction to Unix and Linux for Engineers

2. *Credits and contact hours*

2 credit hours; one 50-minute lecture session/week and one 2-hour-45-minute lab session/week

3. *Instructor's or course coordinator's name*

Instructor: Hamid Mahmoodi, Professor of Electrical and Computer Engineering

Course coordinator: Hamid Mahmoodi, Professor of Electrical and Computer Engineering

4. *Text book, title, author, and year*

Paul K. Andersen, *Just Enough Unix*, 5th edition, McGraw Hill, 2006

a. *other supplemental materials*

(none)

5. *Specific course information*

a. *brief description of the content of the course (catalog description)*

Introduction to software development and program development in the Unix/Linux environment. File system organization and management, editors, utilities, network environment, pattern and file searching, command line interface, scripting languages. Classwork, 1 unit; laboratory, 1 unit.

b. *prerequisites or co-requisites*

Priority enrollment for computer engineering students. Other students may enroll on a space available basis by consent of instructor.

c. *indicate whether a required, elective, or selected elective course in the program*

Required for Computer Engineering.

6. *Specific goals for the course*

a. *specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic.*

- The student will be able to demonstrate knowledge of Unix/Linux operating system.
- The student will be able to work with files and directories.
- The student will be able to work with the shell and shell features
- The student will be able to use text editors: vi, emacs, and pico
- The student will be able to remotely login and transfer files
- The student will be able to use SSH.
- The student will be able to make startup files.

- The student will be able to use scripting languages such as shell, tcl, and perl.
- b. *explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course.*

Course addresses ABET Student Outcome(s): j, k.

7. *Brief list of topics to be covered*

- Introduction to UNIX
- UNIX file system
- UNIX shells
- Text editors
- Networking
- Computer security
- Startup files
- Scripting languages