1. *Course number and name*

**ENGR 212: Introduction to Unix and Linux for Engineers**

1. *Credits and contact hours*

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

1. *Instructor’s or course coordinator’s name*

Instructor: Yuriah Lydon

Course coordinator: Hao Jiang, Professor

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

Syed Mansoor Sarwar, Robert M. Koretsky, *UNIX: The Textbook,* Third Edition, Published by CRC Press, 2016

1. *other supplemental materials*

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

1. *Specific course information*
2. *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.

1. *prerequisites or co-requisites*

Grades of C or better in Math 226.

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

Required for both Electrical and Computer Engineering.

1. *Specific goals for the course*
2. *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 use text editors: vi.
* The student will be able to understand file securities.
* The student will be able to compress or compare files.
* The student will be able to redirect input and output files and understand the concept of pipe
* 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, and bash.

1. *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): 3, 5, 7

1. *Brief list of topics to be covered*

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