CSCE 215 - UNIX/Linux Fundamentals

- **Credit Hours:** 1 hour
- **Contact Hours:** 1 lecture hours
- **Instructor:** Dr. Jason O'Kane
- **Required Textbooks:** N/A
- **Bulletin Description:** UNIX operating system, user-level system commands, and programming tools. UNIX scripting languages.
- **Prerequisite: CSCE 145**
- **Required Course** in CE, CIS, and CS
- **Course Outcomes:** Students will be able to:
  1. Use the user-level tools available in the UNIX operating system to run and build software and programs.
  2. Describe and traverse the UNIX file system.
  3. Describe and use UNIX processes, pipes, signals, and filters.
  4. Use scripting languages such as the UNIX shell and Perl.
  5. Write and use regular expressions and grammars and tools based on them such as grep and Sed to search and edit text

- **Student Outcomes addressed by course**

Program	Student Outcomes Addressed
Computer Engineering	2
Computer Information Systems	2
Computer Science	2

- **Topics covered**
  1. Introduction: history and philosophy of UNIX, GUI; overview of UNIX commands
  2. The UNIX file system and shell Chapter 2, Combinational Systems
  3. The shell and shell commands
  4. Processes, filters, pipes, and signals
  5. Regular expressions; Sed and grep
  6. Shell scripting
  7. Programming tools; make, cvs, tar, RPM, autoconfig, and gdb