Based on ABET ETAC Student Learning Outcomes

1. **Course Number and Name:**
   CSET 3400 Unix System Administration
2. **Credits and Contact hours:**
   Credits: 3 hours, Contact: 3 lecture hours
3. **Instructor's or course coordinator's name:**
   Robert Langendefer
4. **Text book, title, author, and year:**
   None
   a. **Other supplemental materials:**
      None
5. **Specific Course Information:**
   a. **Brief description of the content of the course (catalog description):**
      Commands and methods to install and manage a UNIX system. System administration topics include configuration, user and file management, backup procedures, peripheral devices, performance tuning and troubleshooting.
   b. **Pre-requisites, or co-requisites:**
      CSET 2200
6. **Specific goals for the course:**
   a. **Specific outcomes of instruction:**
      1. Install an operating system and configure a system for a specific task partitioned disk space, added and removed network services, connect to a network.
      2. Add/delete users, check disk space usage, change passwords.
      3. List processes, kill rogue processes, detect high use processes, move processes from foreground to background. Change process priority.
      4. Shut down and reboot a system safely.
      5. Manipulate and change user permissions on files and directories.
      6. Manage time and tasks from multiple sources at once, and to process large amounts of information including email list messages.
      7. Articulate system problems clearly and in writing. Document processes and procedures.
      8. Add new packages to a system.
      9. Write programs to automate tasks simple system administration tasks.
      10. Plan tasks and time so that services are stable and effective.
      11. Demonstrate the ability to research a topic and present a clear articulation of the topic issue.

b. **Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course: 1, 2**
    1. An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems appropriate to the discipline;
    2. An ability to design systems, components, or processes meeting specified needs for broadly defined engineering problems appropriate to the discipline.

7. **Brief list of topics to be covered:**

1. Introduction + Overview
2. System configuration startup
3. Automation and scripting
4. Computer System hardware and software components
5. Disaster planning and recovery
6. System privileges
7. Internet and networking
8. Sysadmin health
9. Social and ethical issues
10. Basic Proxy and Firewall Services
11. Competency demonstrations