Based on ABET CAC Student Learning Outcomes

1. **Course Number and Name:**
   ITEC 2100 Small Computer Systems
2. **Credits and Contact hours:**
   Credits: 3 hours, Contact: 3 lecture hours
3. **Instructor's or course coordinator's name:**
   Robert Langenderfer
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):**
      This course introduces the various alternatives for single-user microcomputer operating system software and hardware. Topics include a definition of single-user systems, systems software, installation and setup, native and third-party utilities, peripheral devices, file systems, and memory management.
   b. **Pre-requisites, or co-requisites:**
      EET 2210
6. **Specific goals for the course:**
   a. **Specific outcomes of instruction:**
      1. Ability to install and configure a variety of modern operating systems
      2. Ability to understand, recognize, and physically configure modern computer components and how they are designated
      3. Understanding of single-user microcomputer operations and terms
      4. Ability to understand how computer components communicate and how information is stored
      5. Knowledge of diagnostics and optimization techniques
      6. Knowledge security and malware issues
      7. Ability to assemble and disassemble a desktop computer
      8. Understanding of Virtual Machines
      9. Understanding of peripheral devices, how they operate, and how to diagnose problems
   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 computing problem and to apply principles of computing and other relevant disciplines to identify solutions;
      2. An ability to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

7. Brief list of topics to be covered:
1. Introduction, History & Components
2. BIOS & OS
3. Virtual Machine & Azure
4. Smaller Computers & Bus
5. Memory & Test 1
6. Drivers and OS Tools
7. Backup & Displays
8. Networking
9. Audio & File Sharing
10. Laser Printers & Test 1
11. Internet with History
12. Benchmarking, GPU, and Graphics
13. Unix Commands & Ubuntu
14. OS Structures & test 3
15. Computer Security