Based on ABET ETAC Student Learning Outcomes

1. **Course Number and Name:**
   EET 2210 Digital Logic Fundamentals
2. **Credits and Contact hours:**
   Credits: 4 hours, Contact: 3 lecture hours; 2 lab hours
3. **Instructor's or course coordinator's name:**
   Ted Evans
4. **Text book, title, author, and year:**
   Digital Fundamentals, T.L. Floyd
   a. **Other supplemental materials:**
      Lab Experiments designed for Digital Fundamentals
      Software: Multisim 7 (Electronics Workbench)
5. **Specific Course Information:**
   a. **Brief description of the content of the course (catalog description):**
      This course covers the fundamentals of digital logic circuits. Topics include number systems, logic gates, Boolean algebra, logic simplification, Karnaugh maps, adders, multipliers, multiplexers and decoders. Elementary digital circuits including flip-flops, counters, shift registers, memory devices, programmable logic devices and integrated circuits are also covered.
   b. **Pre-requisites, or co-requisites:**
      EET 1010
6. **Specific goals for the course:**
   a. **Specific outcomes of instruction:**
      1. Develop an understanding of the analytical techniques used in digital logic.
      2. Develop an understanding of the laboratory skills used to evaluate digital circuits.
      3. Analyze and interpret laboratory data from basic digital logic circuits.
      4. Work effectively in the laboratory with lab partners.
      5. Identify and solve programs related to digital logic circuits.
   b. **Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course: None**
7. **Brief list of topics to be covered:**
   1. Use of different number systems, operations, and codes
   2. Introduction to logic gates
   3. Familiarization with Boolean Algebra and logic simplification
   4. Familiarization with Combinational Logic
   5. Familiarization with functions of combinational logic
   6. Introduction to VHDL Topics
   7. Introduction to flip-flops and related devices
   8. Introduction to Counters