Based on ABET CAC Student Learning Outcomes

1. **Course Number and Name:**
   CSET 3600 Software Engineering and Human Interfacing
2. **Credits and Contact hours:**
   Credits: 3 hours, Contact: 3 lecture hours
3. **Instructor's or course coordinator's name:**
   Weiqing Sun
4. **Text book, title, author, and year:**
   "Software Engineering: A Practitioner's Approach, 7th Edition, Roger S. Pressman, 2005
   a. **Other supplemental materials:**
      As assigned by instructor
5. **Specific Course Information:**
   a. **Brief description of the content of the course (catalog description):**
      An introduction to software engineering processes for technology students. Includes: user requirements, software specification, design approaches, software tools, validation, modification, maintenance, documentation, lifecycle models, and intellectual property considerations.
   b. **Pre-requisites, or co-requisites:**
      CSET 3150 or EET 3150
6. **Specific goals for the course:**
   a. **Specific outcomes of instruction:**
      1. Be able to explain and apply a broad range of concepts from software engineering, spanning all aspects the software engineering process.
      2. Be able to recognize, define, and make correct use of generally accepted software engineering techniques and terminology.
      3. Have experienced working as a member of a team on a software engineering project.
      4. Have experienced applying a representative cross section of software engineering techniques.
      5. Be familiar with best practices of software engineering.
   b. **Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course: d, e, f, g, k**
      D. An ability to function effectively as a member or leader on technical teams to accomplish a common goal.
      E. An understanding of professional, ethical, legal, security and social issues and responsibilities including respect for diversity.
      F. An ability to communicate effectively with a range of audiences using a range of modalities including written, oral and graphical.
      G. An ability to analyze the local and global impact of computing on individuals, organizations, and society.

K. An ability to apply design and development principles in the construction of software systems of varying complexity.

7. Brief list of topics to be covered:

1. Software design
2. Using APIs
3. Software tools and environments
4. Software processes
5. Software requirements and specifications
6. Software validation
7. Software evolution
8. Software project management
9. Risks and liabilities of computer-based systems
10. Intellectual property
11. Object Oriented Programming