1. **Course Number and Name:**
   ENGT 4050 Senior Technology Capstone
2. **Credits and Contact hours:**
   Credits: 3 hours, Contact: 3 lecture hours
3. **Instructor's or course coordinator's name:**
   Bilal Sarsour
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 will provide each student with the opportunity to work in a team environment to solve design problems and to utilize his/her knowledge in critical thinking. Students will reach design decisions and will make oral and professional presentations to their peers and to professionals at the Senior Design and Undergraduate Research Expo at term's end. Students are expected to show evidence of significant individual contributions to team efforts, as well as due consideration of such design aspects as effectiveness, material selection, ergonomics, safety, cost, effect on the environment, ethics, ease of productions, etc.
   b. **Pre-requisites, or co-requisites:**
      Senior Standing
6. **Specific goals for the course:**
   a. **Specific outcomes of instruction:**
      1. The ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
      2. The ability to apply creativity in the design of systems, components or processes appropriate to program objectives.
      3. The ability to function effectively on teams.
      4. The ability to identify, analyze and solve technical problems.
      5. The ability to communicate effectively.
      6. A recognition of the need for, and the ability to engage in, lifelong learning.
      7. The ability to understand professional, ethical and social responsibilities.
      8. A respect for diversity and a knowledge of contemporary professional, societal and global issues.
      9. A commitment to quality, timeliness and continuous improvement.

b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course:

3. An ability to apply written, oral, and graphical communication in broadly defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

5. An ability to function effectively as a member as well as a leader on technical teams.

7. Brief list of topics to be covered:
1. Value Engineering
2. Marketability
3. Value Added Design
4. Presentation Skills
5. Public Speaking
6. Budget Development
7. Ethics
8. Intellectual Property Overview
9. Resume Development
10. Professional Appearance