A. Identification:
   1. Subject Area:   Engineering (EGR)
   2. Course Number: 186
   3. Course Title:   Introduction to Engineering
   4. Credit Hours:  3

B. Course Goals:
   To introduce students to the academic and professional life of engineers; to explore the design process through team projects and enhance communication skills. Provide foundational structure for future engineering design coursework.

C. Course Outcomes: Upon successful completion of the course, student will:
   1. demonstrate an ability to frame, solve, and evaluate the solutions of engineering problems;
   2. express understanding of an engineer’s professional and ethical responsibilities;
   3. use EXCEL for graphing, mathematics, and basic statistics;
   4. show effective communication through written reports and oral presentations;
   5. design a solution to an engineering problem to meet desired needs and identify constraints;
   6. work effectively on a multidisciplinary team in designated positions;
   7. and list possible solutions to engineering problems and use the matrix method to weigh options.

D. Course Outcome Assessment will include:
   1. written reports;
   2. powerpoint presentations;
   3. group projects;
   4. and in-class final exam.

E. Course Content will include:
   1. an introduction to the academic and professional lives of engineers;
   2. ethics within the field of engineering and the general workplace;
   3. the engineering design process:
      a. problem identification;
      b. solution methods;
      c. evaluation of results;
      d. cycling;
   4. role and impact of engineering in contemporary economic, societal, and environmental contexts;
   5. strategies for effective teamwork and communication;
   6. writing technical reports and summarizing data;
   7. and identification of stakeholders, cost, and material constraints.