1. *Course number and name*
   ENGR 290: Matlab Programming Introduction

2. *Credits and contact hours*
   1 credit hour

3. *Instructor's or course coordinator's name*
   Instructor: Kawai Lau
   Course coordinator: Cheng Chen, Associate Professor

4. *Text book, title, author, and year*
   No required text for this course

5. *Specific course information*
   a. *brief description of the content of the course (catalog description)*
      Basic introduction to MATLAB language: array manipulations; control-flow; script and function files; simple 2-D plotting and editing.

   b. *prerequisites or co-requisites*
      Sophomore standing or later

   c. *indicate whether a required, elective, or selected elective course in the program*
      Elective for Mechanical Engineering and Electrical Engineering

6. *Specific goals for the course*
   a. *Specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic.*
      - Students will be introduced to the basic operations of the MATLAB language.
      - Students will write simple script files and function files in MATLAB.
      - Students will learn the effective use of the built-in features of 2-D plotting.
      - Students will learn the use of the built-in features of Simulink

   b. *Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course.*
      Course addresses ABET Student Outcome(s): a, k

7. *Brief list of topics to be covered*
   - Basic operations of MATLAB.
   - MATLAB environment.
   - MATLAB functions.
   - Matrix computations.
   - Symbolic mathematics.
   - Numerical techniques.
   - Simulink