1. **Course number and name**  
   ENGR 103: Introduction to Computers

2. **Credits and contact hours**  
   1 credit hours; One 2:50-minute lab sessions/week.

3. **Instructor’s or course coordinator’s name**  
   Instructor: Amir Tabrizi, Lecturer and Computer Lab Manager  
   Course coordinator: Amir Tabrizi

4. **Text book, title, author, and year**  
   Please use the following URL to order the text book  
   
   a. **other supplemental materials**  
      Hand outs using “online.sfsu.edu” website.

5. **Specific course information**  
   a. **brief description of the content of the course (catalog description)**  
      Introductory course on programming, using a high–level language. Use of algorithms. Program organization, formulation and solution of engineering problems.

   b. **prerequisites or co-requisites**  
      ENGR 101, MATH 226

   c. **indicate whether a required, elective, or selected elective course in the program**  
      Required for Mechanical and Civil engineering majors

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.**  
      - To familiarize the student with computers (i.e. ICC compiler in windows environments, University UNIX Main Frame) and computer language.  
      - To introduce students to the grammar and basic rules of Ansi C programming.  
      - To provide students with an opportunity to use computers to solve basic problems.  
      - To train students in the proper problem formulation and programming procedures in the solution of general programming problems.

   b. **explicitly indicate which of the student outcomes listed in Criterion 3 or any other**  
      Course addresses ABET Student Outcome(s): a, k.
7. *Brief list of topics to be covered*

- Getting familiar in the use of Ansi C programming and compilers on PCs and University UNIX Main Frame computers.
- Arithmetic operations.
- IF, FOR, WHILE, SWITCH structures.
- I/O Formats.
- Array manipulation.
- I/O functions.
- Mathematical functions.
- External files.