1. **Course number and name**
   
   **ENGR290-3: Design Methodology**

2. **Credits and contact hours**
   
   1 Credit Hours

3. **Instructor’s or course coordinator’s name**
   
   Instructor: Dipendra K. Sinha, Professor
   Course coordinator: Dipendra K. Sinha, Professor

4. **Text book, title, author, and year**
   
   
   a. **other supplemental materials**
      
      - Cross, Nigel, *Engineering Design Methods*, John Wiley & Son

   (Optional References).

5. **Specific course information**
   
   a. **brief description of the content of the course (catalog description)**
      
      Various approaches to design of engineering systems. Systematic approach to engineering design work. Various strategies in resolving mechanical engineering design issues in a teamwork environment are presented and practiced.

   b. **prerequisites or co-requisites**
      
      **sophomore standing**

   c. **indicate whether a required, elective, or selected elective course in the program**
      
      Elective for Mechanical 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.**
      
      - Student has developed a systematic approach to engineering design and problem solving
      - Student has developed communication skills to present intuitive concepts to design groups
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): e,d,g.

7. Brief list of topics to be covered

- Engineering problem solving
- Solving Engineering Analysis Problems
- The Design Process
- Communicating Solutions