1. **Course number and name:** MECH 2131: Manufacturing Engineering Lab

2. **Credits and contact hours:** 1 SCH – 3 hours of laboratory

3. **Instructor’s or course coordinator’s name:** Angel Lerma / Arturo Bronson / Louis Everett

4. **Text book, title, author, and year:** None

5. **Specific course information**
   a. **brief description of the content of the course (catalog description):** Fall 2012 UTEP catalog description: Basic, automated, and advanced manufacturing concepts. Shop demonstration and practices.
   b. **prerequisites or co-requisites:** MECH 1305: Graphic and Design Fundamentals
   c. **indicate whether a required, elective, or selected elective (as per Table 5-1) course in the program:** Required.

6. **Specific goals for the course**
   a. **specific outcomes of instruction:**
      The primary objective of this class is to introduce the fundamentals of the machining trade. Emphasis is placed on the following topics:
      - Machine shop safety,
      - Blueprint interpretation,
      - Measuring instruments,
      - Hand tools,
      - Machine shop conventional machines,
      - Principles of computer numerical control machines and programming.

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

      | Student Outcomes | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
      |------------------|-|--|--|--|--|--|--|
      |                  | X | X |   |   |   |   |   |

7. **Brief list of topics to be covered:** Lab activities only
   - Machine shop safety,
   - Blueprint interpretation,
   - Measuring instruments,
   - Hand tools,
   - Machine shop conventional machines,
• Principles of computer numerical control machines and programming.