

**1. Department, Course Number, and Course Title:**

MECHANICAL ENGINEERING

**ME 310 MECHANICAL ENGINEERING WRITING LABORATORY**

**2. Designation:** Required  Elective   
Lower Division  Upper Division

**3. Course Description:** The purpose of this course is to provide students with methods, strategies and context for developing clear and effective writing suitable for the mechanical engineering profession.

**4. Prerequisites:** Successful completion of all General Education writing requirements, including the Writing Proficiency Exam.

**5. Text and Materials:** Technical Writing Basics: A Guide to Style and Form, 3rd Edition, Holloway, Prentice Hall, 2005

**6. Course Objectives:** The purpose of this course is to draw the attention of students to the importance of written and oral communication skills in their engineering career success. The instructor provides students with methods, strategies, and context for developing clear and effective writing suitable for the mechanical engineering profession. Special attention is paid to issues of formatting, audience, purpose, organization, clarity, and style.

Course Outcomes

- Students will be able to prepare a concise and organized plan and outline for engineering research paper.
- Follow scientific and citation guidelines in the field of engineering.
- Students will be able to analyze how the scientific genre differs from composition writing.
- Students will be able to write and communicate effectively through writing memos, transmittal letters

**7. Topics Covered:** (in Order of Presentation)

- Course introduction; diagnostic quiz and grammar review
- Discussion of communication evaluation; workshop on editing and peer review
- Proposal workshop; discussion of letters of transmittal
- Technical presentations and PowerPoint workshop; discussion of Internet research methods;
- ECST librarian presentation on ME research databases; workshop on CBE citation
- Workshop on abstracts and executive summaries
- Job interview workshop; discussion of resumes and cover letters
- Review and wrap-up; peer and course evaluations; grammar/punctuation post-diagnostic

**8. Class Schedule:** Number of Sessions per week: 1  
Duration of each session: 2 hour 50 minutes

**9. Contribution of course to meeting the professional component:**

This course is part of the one year (48 quarter units) of Basic Mathematics and Science.  
Other 1 unit

**10. Relationship of course to program objectives:**

This course relates to the program objectives by contributing to the following measurable outcomes at the level indicated for all engineering graduates:

Knowledge outcomes:

- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context (abet h)
- knowledge of current events and societal contemporary issues -- non-engineering related. (abet j)

- a knowledge of how mechanical engineering integrates into inter-disciplinary systems

Skill outcomes:

- an ability to function on multidisciplinary teams (abet e)
- an ability to communicate effectively (abet g)
- an ability to think in a logical sequential process

Attitudes Outcome:

- an understanding of professional and ethical responsibility (abet f)
- a recognition of the need for an ability to engage in lifelong learning (abet i)
- an understanding of responsibility and accountability
- a desire to be a professional that exhibits values, dedication and a need for continual improvement
- a desire to be a flexible and adaptable team player (collaborative attitude)

**11. Prepared by:** Maryam Azarbayjani

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