

**University Of California, Berkeley**  
**Department of Mechanical Engineering**

**ME 191K: Advanced Topics in Mechanical Engineering (3 units)**  
**6 Week Version -Summer**

**Undergraduate Elective**

*Syllabus*

**CATALOG DESCRIPTION**

This course is designed to enhance students' written and oral communication skills. Written work consists of informal documents—correspondence, internal reports, and reviews—and formal work—proposals, conference papers, journal articles, and websites. Presentations consist of informal and formal reports, including job and media interviews, phone interviews, conference calls, video conferences, progress reports, sales pitches, and feasibility studies.

**COURSE PREREQUISITES**

English 1A, English 1B

**TEXTBOOK(S) AND/OR OTHER REQUIRED MATERIAL**

No textbooks are required for this course

Material will be provided in the form of handouts and as postings on BSpace

**COURSE OBJECTIVES**

To teach students the skills that will assist them in planning and executing written and oral projects in the workplace or graduate school.

**DESIRED COURSE OUTCOMES**

- To analyze communication models and utilize beneficial components
- To advance students' ability to communicate effectively in a variety of professional and academic environments
- To combine theory and practice
- To develop collaborative projects
- To lead teams in presenting material
- To produce clear, concise documentation including resumes, CVs, instructions, abstracts, executive summaries, proposals, and reports
- To improve presentation skills in professional and academic environments
- To effectively deliver a sales pitch
- To integrate extensive speaking practice and individual critiques

- To use graphics effectively
- To design a user-friendly web site that represents an organization's mission statement and goals
- To develop business protocol skills
- To practice correct dining etiquette

## **TOPICS COVERED**

Written work—resumes, cover letters, email correspondence, internal and external memos, lab reports, reviews, sets of instruction, proposals, conference papers, journal articles, and websites

Oral presentations—job and media interviews, feasibility and progress reports, informal and formal reports, sales pitches, and conference presentations

## **ASSESSMENT OF STUDENT PROGRESS TOWARD COURSE OBJECTIVES**

- Attendance, class participation, and homework assignments (25%)
- Short group presentation (10%)
- Team presentation and informal report (15%)
- Final project—individual presentation, formal report, and website (25%)
- Peer and self-review of recorded presentations (10%)
- Semester portfolio of written work (15%)

Week	Topic
Week 1	<p><b><u>Presenting Yourself</u></b></p> <ul style="list-style-type: none"> <li>• Resumes &amp; CVs</li> <li>• Cover letters</li> <li>• Interviewing (lecture at the Career Center)</li> </ul> <p><b><u>Correspondence</u></b></p> <ul style="list-style-type: none"> <li>• Netiquette</li> <li>• Inquiries and the art of asking</li> <li>• Addressing different needs in writing</li> </ul>
Week 2	<p><b><u>Audience</u></b></p> <ul style="list-style-type: none"> <li>• Issues of audience</li> <li>• Handling various audiences</li> </ul> <p><b><u>Public Speaking</u></b></p> <ul style="list-style-type: none"> <li>• Basics of public speaking</li> <li>• Establishing a speaking style</li> <li>• Self-evaluations based on recorded, informal presentation</li> </ul> <p><b><u>Instructions</u></b></p> <ul style="list-style-type: none"> <li>• Assembling sets of instructions</li> <li>• Testing &amp; evaluating sets of instructions</li> </ul>
Week 3	<p><b><u>Presentation Basics</u></b></p> <ul style="list-style-type: none"> <li>• Achieving style</li> <li>• Engaging the audience</li> <li>• Creating &amp; executing a sales pitch</li> <li>• Coaching product representatives</li> </ul>
Week 4	<p><b><u>Graphics: A Basic Overview</u></b></p> <ul style="list-style-type: none"> <li>• Visualizing information</li> <li>• Using Microsoft PowerPoint effectively</li> <li>• Using Prezi effectively</li> <li>• PowerPoint vs. Prezi</li> </ul> <p><b><u>Short Group Presentations</u></b></p>
Week 5	<p><b><u>Short Group Presentations (cont'd)</u></b></p> <p><b><u>Business Etiquette &amp; Dining Skills</u></b></p> <p><b><u>Formal Reports &amp; Presentations</u></b></p> <ul style="list-style-type: none"> <li>• Matching structure and audience</li> <li>• Aligning voice, design, and purpose</li> </ul>
Week 6	<p><b><u>Formal Reports &amp; Presentations (cont'd)</u></b></p> <p><b><u>Individual Presentations</u></b></p>