

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA  
MECHANICAL ENGINEERING DEPARTMENT

ME 461/462 SENIOR PROJECT SYLLABI

GENERAL GUIDELINES:

Each student enrolled in ME 461 must acquire senior project advisor acceptance of his/her written proposal within fourteen calendar days after the start of the quarter. If this deadline is not met, the project advisor has the option of dropping the student from ME 461.

The student should consider the senior project advisor as a supervisor—one who offers guidance through the project—not necessarily a technical consultant. The student is expected to exhibit command over engineering principles and to make the necessary engineering decisions on his/her senior project.

The project advisor will post on his teaching schedule a 1/2-hour block of time per week for each student he is advising. The advisor will indicate to the student his availability and will require written or oral weekly progress reports to be submitted at a mutually agreeable time. It is the responsibility of the student to work closely with his/her project advisor and to keep him informed in writing of any deviations from the proposal. All deviations must be negotiated and approved by the advisor before they become final.

The final report is due the quarter in which the student is enrolled in ME 462, fourteen calendar days before final examination week. Since the student will be graded on this final report, it should be typewritten in accordance with the General Manuscript Details guidelines and complete, i.e., all graphs, figures, pictures, etc., included. If the advisor finds that portions of the report are unacceptable, the student may be required to revise his/her report prior to final acceptance. In any case, either the corrected version or the original (if acceptable) of your final report plus two copies are due the last day of scheduled classes for the quarter. The student may pick up his/her graded final report from the department secretary anytime during the following quarter. Of the two copies, one is sent to the library and the other kept in the department.

A formal oral report (supported with appropriate visual aids) made to a professional organization may be substituted for the written final report. The student must obtain permission from his/her senior project advisor to make this substitution.

The inability to meet the final report deadlines as outlined above will result in a failure to obtain a passing grade for ME 462. Final reports and/or revised versions will **not** be accepted after their respective deadlines during any quarter. (Note that this implies that a late final report may result in a delay in the student's graduation.)

OBJECTIVES:

1. To help the student gain insight into the problems involved in engineering a project and attending to the detail work.
2. To provide the student the opportunity to gain even greater insight by actually building his/her project.
3. To develop the student's ability to meet completion dates, and to provide the impetus to see a task through to completion.
4. To develop the student's ability to present, in the form of a clear and concise report, the following:
  - a. A summary of the project.
  - b. The overall objectives.
  - c. The procedures followed to complete the project.
  - d. The design and analysis involved.
  - e. The test results or evaluation of the project.

- f. A conclusion.
- g. The suggested areas of further work.

5. To foster the student's appreciation of technical support people in industry.

**METHOD OF INSTRUCTION AND EVALUATION:**

The student works under the supervision of his/her senior project advisor who will evaluate the student's engineering performance and reports. Grades will be based upon the following:

**ME 461**

Proposal (if different from the one submitted in ME 463)	_____
Workbook—organization, calculations, etc.	_____
Engineering judgment, competence, work habits, etc.	_____
Ability to meet project deadlines and reporting dates	_____
Progress reports	_____
	100%

**ME 462**

Workbook—organization, calculations, etc.	_____
Engineering judgment, competence, work habits, etc.	_____
Ability to meet project deadlines and reporting dates	_____
Progress reports	_____
Written final report or oral report to a technical organization such as ASME, SAE, ASHRAE, etc.	_____
	100%

The specific breakdown in weighting the above items is dependent upon the nature of the senior project and will, therefore, be tailored to your specific project by your faculty advisor.

Instructor:

Phone:

Office Hours:

Location:

Notes:

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA  
MECHANICAL ENGINEERING DEPARTMENT

SENIOR PROJECT REPORT  
GENERAL MANUSCRIPT DETAILS

NUMBER OF MANUSCRIPTS:

1. Three are required—one original and two xerox copies.
2. The distribution is as follows:

The original (graded manuscript) is returned to the student.  
One of the copies is placed in the University Library.  
The second copy is kept in the Department Library.

BINDING REQUIREMENTS:

1. The reports are to be bound in an Accopress (or equivalent hard cover) folder available in the Bronco Bookstore.
2. The title and the name of the student are to be typed on a label which is adhered to the front of the folder.

Example:

<hr/> <p>(Title of Project)</p> <p>By</p> <hr/> <p>(Student's Name)</p>
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PAPER:

1. A good quality bond paper is required—not less than 16 pound weight.
2. The paper must be standard letter size, i.e., 8 1/2" x 11".

MANUSCRIPT FORMAT:

Regardless who types the manuscript, the student is responsible for its conformity to certain conventional requirements, as well as for its neatness and accuracy.

1. Pica type is preferred, but elite type may be used.
2. Top, right, and bottom margins are 1 1/4", left margin is 1 1/2".
3. All text material is double spaced.
4. Short quotations are included in the text, in quotation marks.

5. Long quotations (over three or four lines) are double indented and single spaced, without quotation marks.
6. The pages are numbered 1/2" below the top of the page, and 1 1/4" from the right hand edge of the page.
  - a. Small Roman numerals—i, ii, iii, etc.—are used in numbering all succeeding pages preceding the first chapter.
  - b. Arabic numerals—1, 2, 3, 4, etc.—are used in numbering all succeeding pages.
7. Illustrative materials require special attention.
  - a. Photographs, drawings, diagrams, and similar illustrative materials are designated as Figures, which are numbered consecutively throughout the project in Arabic numerals; i.e., Figure 1, Figure 2. The Figure designation is centered immediately below the illustration.
  - b. Tables are designated in Roman numerals, as Table I, Table II, etc., throughout the text. The Table designation is centered immediately above the table.
  - c. Illustrative material is used wherever it is appropriate to the text and is placed as near as possible after the material to which it applies.
  - d. Essential explanatory notes for illustrative material are placed below the figure or table. If a footnote is necessary, it is used according to standard footnote form, but it should not be separated from the figure or table by a dividing line.
8. Footnotes should be used to identify quotations or indebtedness to a source for specific information. The form in which the references are made should conform to the style used in professional literature in the student's field of specialization.
9. A bibliography of references used in preparation of the report is placed at the end of the report. All references are listed in a single alphabet by author's last name and numbered consecutively. If the author is unknown, list the reference by the first significant word of the title.

(Title Page)

THE EFFECT OF CORROSION  
ON TURBINE BLADES

by

*(Student's Name)*

California State Polytechnic University, Pomona

June 1994

Assignment of Grades:

ME 461\_\_\_\_\_

ME 462\_\_\_\_\_

Final Report\_\_\_\_\_

Faculty Advisor \_\_\_\_\_  
Prof. *(Senior Project Advisor's Name)*

Approved \_\_\_\_\_  
Chair, Mechanical Engineering

(NOTE: The "Assignment of Grades"  
appears on the original only.)

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(NOTE: An Abstract and, as shown in this sample Table of Contents, Sections VII, VIII and IX are required in all final reports. Other sections should be consistent with the type of project; i.e., a design project would not have a section on Laboratory Procedure, etc.)

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ABSTRACT