

California Polytechnic State University
COOPERATIVE EDUCATION PROGRAM

PROFESSIONAL REPORT GUIDELINES

The Co-op Professional Report must be submitted to the department office to receive full academic credit for the Co-op experience. If the student works two successive quarters for the same employer (i.e., Summer/Fall), only one report is required for the combined work period. The Professional Report is due, along with the Student Evaluation, Supervisor Evaluation, and Monthly Progress Reports, by the end of the first week of the quarter following the work term. Two sets (one original and one copy) are required to be submitted to the Co-op Faculty Advisor (do not email the report).

The Co-op Professional Report contains two parts. Section I involves a narrative or research directly related to some aspect of the student's professional or technical work on the job. Section II involves a job description/task analysis and evaluation of the Co-op assignment including current company information, literature and/or annual report. The Co-op Professional Report is designed to give the student experience in writing both professional and general reports, to encourage the student to reflect on his or her experience, and to gain additional educational benefits. The report will be evaluated on organization, content, and communication skills (including grammar). These skills contribute significantly to a student's progress at the University and to an employee's progress in any organization. NOTE: If your company reports follow the normal technical report format and review procedure for Co-op, your Co-op Faculty Advisor may waive the standard CENG Co-op Professional Report. Check with your Co-op Faculty Advisor in advance for approval.

General Guidelines

- A. Double spaced typing on only one side of 8 1/2" X 11" bond. Pages should be numbered consecutively, and each section should have a title (further instructions below). All illustrations should be captioned and binding should be by stapling in the upper left-hand corner.
- B. An unnumbered title page including the following information in the order listed:

Report Title
CO-OP PROFESSIONAL REPORT
Author's Name
Social Security Number
Major
Employer
Supervisor's Name
Supervisor's Telephone Number
Work Assignment Quarters
Date Submitted

In partial fulfillment of requirements for:
495/595 First Co-op Assignment

Local Address
Local Telephone

- C. The next page is the Table of Contents and, like the Title Page, is not numbered.
- D. The body of the report should be in two sections (with pages numbered consecutively through both sections) and titled as follows:

SECTION I

This section should be 6-10 pages, doubled spaced, and may contain illustrations. The report is expected to be the student's own work with references to sources used to prepare the report.

A wide range of subject matter is permissible, provided there is a connection with the work experience. Research and reading are required.

Sample topic concepts are:

- ✓ The design, development, manufacturing, or testing of equipment or products with which the student was associated while on the job.
- ✓ The history and development of an engineering process and practice with which the student was associated while on the job.
- ✓ An in-depth analysis and evaluation of management strategies, accounting practices, or buying procedures in a firm.
- ✓ A comparison/contrast of several writing styles, art styles, drafting techniques, recreational activities, teaching styles and techniques.

This section should follow the format outlined below. However, it is recognized that for some students in some majors, this format might not be appropriate or workable. In such cases, the student should develop his or her own organization in consultation with the Co-op Faculty Advisor.

Typical Format

A. Abstract

The abstract should provide a concise summary of the main points of Section I so that the reader will know what is of major importance.

Single-space this section. The abstract should be 250 words or less. Information to be included: (1) TITLE OF PAPER; (2) author's name and major; (3) employer name and location; (4) abstract, including (a) a sentence statement of the study's specific objectives, unless given in the title, (b) brief statement of methods, if pertinent, (c) summary of results obtained, (d) a statement of the conclusions, (e) acknowledgement of any financial support, and (f) dates of Co-op assignment.

SAMPLE ABSTRACTS: THE EFFECT OF SULFUR DIOXIDE ON PROTEIN CONCENTRATION IN HUMAN EYES. Jones, John, Environmental Engineering; Environmental Protections Agency, San Francisco, CA.

A major portion of the author's Cooperative Education assignment at EPA utilized researching the harmful effects of air pollutants on human health -- repeatedly seen during air pollution episodes. The physiological effects upon the eyes are commonly experienced as excessive tearing, dry eye, and eye irritation. Because tears are secretory discharge, it is likely that a change in the composition of the tears may be the result of the changes in the condition of eye tissues. Sulfur dioxide, one of the primary pollutants and a contingent of smog, has been chosen for this study. Tear samples from female New Zealand white rabbits were collected from the inner medial puncta of the eye with the use of ten micro liter capillary pipettes. Tear protein concentration was determined using fluorescence spectrophotometer. We have found that a period of adaptation for the test animals to the environmental chamber is essential. Certain environmental factors allow a steady range of protein concentration to be established so that any significant deviations can be observed from the exposure to sulfur dioxide. The rabbits were exposed to high levels of sulfur dioxide (18-24 PPM) with essentially no change noted at low concentrations (3-6 PPM). Research supported in part by NIH Grant 5-S06-RR08101-09.

Date of Co-op Assignment: March-September 2001

B. Introduction

The introduction should supply the background information necessary to understand the discussion. Information that should be contained is:

1. Purpose of the research and nature of the problem being investigated.
2. Scope of the research and limitations.
3. Historical background: (a) the research, and (b) the subject matter.
4. Technical background: (a) theory, and (b) explanation of unusual concepts, apparatus, procedures, etc.
5. References to published material that has been extensively relied on in the discussion that is not cited elsewhere.
6. Acknowledgement of assistance of persons or organizations not cited elsewhere.

C. Discussion

The main rule regarding the discussion section is that it be logically organized:

1. Use headings and subheadings.
2. Develop ideas logically.
3. Use a paragraph and subheading appropriately to convey ideas.
4. Make clear transition from one idea to the next.
5. Show clear relationships between section and the overall subject.
6. Arrange illustrative data for maximum clarity.

D. Conclusion(s)

1. State the result(s)/outcome of the discussion.
2. Give a PERSONAL judgement/opinion of the conclusion.

E. Appendix

All material which is essential for an understanding of Section I, but which for various reasons cannot be conveniently incorporated into the discussion, should be included in the Appendix. Wherever possible, put graphics and other illustrative material in this part of the report. Be certain that:

1. Each separate item or exhibit has a clear and accurate identifying title.
2. Each item has an identifying letter or number that is listed either under "Appendix" or in the Table of Contents.
3. Order the items in the Appendix in the order they are referred to in the text.

F. Bibliography

The bibliography identifies all reference material that contributed to the report.

SECTION II

The purpose of this section is to put the Co-op experience into perspective and provide other Cal Poly students with an in-depth picture of Co-op employment opportunities. A copy of Section II may then be placed in the Co-op Library (Career Services) to provide job information for other students. The student's name and social security number will be deleted from the Co-op Library copy. The topics below are general guidelines and may be used as an outline for Section II of this report. This part of the report is intentionally set up to be "open-minded" to provide maximum freedom of expression.

A. Work Description

1. **Organization Description:** Kind of business or service, products, history, functions and responsibilities of various departments; how the author's department fits into the overall organization; physical facilities; and facts about the employer (affiliates, locations, number of employees, etc.).
2. **Job Satisfaction:** Was the work satisfying? Did it meet your expectations? Explain.
3. **Relevance:** Was your work assignment related to your field of study? How? Did the work experience help you find a special area of interest within your academic field?

4. Responsibilities: What type of responsibility did you have while on your assignment? Did you feel part of the total "team effort?" Give examples.
5. Living Arrangements: If you lived away from home, where did you live (apartment, boarding house, etc.)? Was it satisfactory? Approximate total of monthly living expenses? Did your employer provide help in finding housing.
6. Social/Cultural Opportunities: How did you spend your free time? Opportunities to meet others in your age group? Opportunities to attend sports events, plays, concerts, etc.?

B. Task Analysis

Give your job title and outline the task in which you were involved for the Co-op work period. The following is a sample listing of tasks:

Title: *Facility Engineer*

1. Prepare plant, office and production equipment layouts for economy of operation and to maximize utilization of facilities and equipment.
2. Select, order and maintain inventory control for furniture.
3. Handle all signage. Write specifications and cross-bid projects.
4. Oversee faculty-related activities and interface with regulatory agencies.
5. Review and estimate design costs, including equipment, labor, material and preparation
6. Develop performance specifications for facilities and equipment required to meet unique operating requirements and building and safety codes.

C. Course Relevancy

Please answer the following questions. Be as specific as possible.

1. What courses did you take at Cal Poly that applied to your work assignment?
2. In what specific ways were these courses beneficial in preparing you for your Co-op experience? In what ways could they have better prepared you?
3. What technical skills did you gain as a result of your work assignment?
4. What equipment, tools, software applications did you use while on work assignment?
5. What theoretical concepts or conceptual knowledge did you apply during your work assignment?
6. What have you learned through your Co-op experience that is not traditionally learned in the classroom?
7. What do you consider to be the best aspects of your Co-op experience? What concerns would you express to future students about going on Co-op?
8. How could the College of Engineering and Career Services have helped to make the experience better?

REPORT EVALUATION

The following procedures will be used to evaluate the Co-op report:

- A. The Co-op Professional Report is due in the office via email on the last day of classes, the last quarter of your Co-op. Late submission will affect your credit/no credit determination.
- B. The Co-op Faculty Advisor, (IME Department Chair) will evaluate the report for format, organization, the ability to express facts and concepts, and communication skills (including grammar, spelling, etc.); and may make written suggestions for improvement on the original report.
- C. If, in the judgement of the Co-op Faculty Advisor, the report should be rewritten, you will have two weeks to incorporate the suggested changes and submit the revised report.