

GUIDELINES AND FORMAT FOR COOPERATIVE EDUCATION REPORTS

I. WHAT IS THE PURPOSE OF THE REPORT?

The report is valuable practice in communication. (Most employers have consistently listed communication as the single most important skill needed by everyone in an organization.)

1st and 2nd quarter students: The report will constitute 75% of your Co-op Ed. grade with the supervisor evaluation 15% and 10% for your evaluation of at least one 3rd quarter oral presentation.

4th and 4+ quarter students: The report will constitute 75% of your Co-op Ed. and the supervisor evaluation 25%.

II. FOR WHAT AUDIENCE IS THE REPORT WRITTEN?

Most university reports are written to communicate horizontally. That is, your audience is usually other students and the professor, but not the president of the university or the Board of Trustees. You will discover in industry, however, that most of your communication will be vertical. You will be communicating with those people you supervise and with those who are above you. Many of these people are not experts or even formally trained in your field of expertise. Nevertheless, you must be able to effectively communicate with such people in order to survive and succeed. Your Co-op Ed. report will give you needed experience in this type of reporting.

Your Co-op report should be written as though it were to be read by a top-level executive in your Co-op company. You may assume that this person has some background in your major but is not familiar or up-to-date with your work. The "Objectives" and "Executive Summary" sections of the report are particularly directed to this audience. (Failure to communicate the progress, significance, and value of your work to this audience might have dire consequences in industry!)

The other audience for your report is a faculty member in your department and the Co-op Director. Assume this audience has not visited you at your Co-op job site and has no prior knowledge of your work. Your report should convince them that you recognize and understand what and why specific principles, techniques, etc., are used at your job, how they are used, and how your job affects your education at Cal Poly.

III. HOW WILL THE REPORT BE GRADED?

Your report grade will be determined by:

- 1) How well you correctly address the above-mentioned audience.
- 2) How well you adhere to the guidelines and format given here.
- 3) How well it is written (grammar, spelling, syntax, and typing).
- 4) How well you effectively express scientific understanding.

Your report determines the largest part of your Co-op grade; thus, it should be submitted on time and is **not** to be treated lightly (**a reduction of one letter grade will be applied if not submitted in a timely manner**).

IV. WHY HAVE A FORMAT?

A proper format is basic to good communication. Having a good format can help the writer to organize his/her thoughts and present the material in an acceptable way. A good format contributes to clarity and helps the reader know at every point what is being explained.

V. WHAT FORMAT IS TO BE FOLLOWED?

There is no universally accepted format for reports within companies. The format presented for you to follow in your Co-op report is derived from several experienced sources in industry.

Your report should be typed (double spaced) and should be divided into the following sections, each section titled as shown, except the title page. Number each page (except the title page) at the bottom center.

You should submit **one copy** of your report to the Co-op Office, 8-333. **Faxed or emailed copies WILL NOT be accepted.** You **MUST** also turn in the "Student Evaluation of Co-op Experience" form. If your supervisor wishes, you can also turn in his/her evaluation form of you instead of having to mail it.

- A. **Title Page.** In the center include your name, the company name, a descriptive title of your work or project (e.g. "Pesticide Residue Analysis by Gas Chromatography"), and the date the report is submitted. In the bottom part of the title page include:

This Cooperative Education Report has been submitted to (name of company supervisor) and has been approved for release and submission to Dr. Francis X. Flores, Cooperative Education Director, Cal Poly, Pomona **during the 9th week of the quarter.**

Signed (signature of company supervisor) Dated _____

- B. **Objectives.** These should be the objectives of your specific work or project at the company. Start out with the phrase, "The objective(s) was (were)....." and then list it (them). Objectives should be **clearly** stated. They should suggest action and the action should be capable of being judged. The reader should be able to tell specifically what the objectives are at the start of the report and by the end of the report the reader should be able to easily tell if they were achieved.
- C. **Executive Summary.** This section (often called an abstract) should be **no longer than one page**. It is intended for the busy executive who does not have time to read the entire report. Writing the essence of a complicated report in one page takes skill. You must carefully organize your thoughts to do it well. (This section is best written after most of the report has been completed.)
- D. **Description of the Co-op Position and Activities.** This section should start with an introduction and background information about your Co-op company employer. Describe how your position fits into the overall company structure and mission. Briefly describe what previous work by you or others had been done prior to this work period. Then briefly describe all activities or projects that you have done this quarter (one sentence to one paragraph about each activity or project and roughly what percentage of your time has been spent on each activity this quarter).
- E. **Description of Project(s) Completed and Data**
It is understood that "description of data" and "theory behind a procedure" will not be appropriate for some majors writing this report.
The length and content of Section E will obviously depend on the co-op assignment but generally should be approximately three to five pages.
This section should focus on the activities/projects that you spent the most time on or that you are allowed to describe in detail
If there are data or other information that ordinarily would go in this section (or other sections) but which your supervisor or company considers proprietary, confidential, etc., they may be omitted or altered or qualified as needed and a notation made to that effect. It is expected, however, that the student will make every effort to complete as much of this section as is possible.
Write this section so that another Co-op student, for example, using only this section, could repeat your work and pretty much come up with the same results as you did. Use the third person and past tense ("The experiment was done" not "I did an experiment"). Use complete paragraphs and not an outline or a listing of numbered steps or instructions. You need to give the theory behind a procedure or explain why a procedure was used and describe how the procedure was done. Appropriate data, figures, tables, and graphs (with titles) should be presented in this section if applicable.
- F. **Suggestions For Further Work, New Objectives, and Action Required.** Give any suggestions for further work needed to accomplish your original objectives. State new objectives that you would like to accomplish during your next Co-op term. State how and when you would expect to accomplish them and how one would evaluate how well your objectives are met. This section helps you suggest to your supervisor some new areas of responsibility that you feel qualified to undertake, **and** helps justify continuing academic credit for your Co-op work experience.

G. **Personal Comments, Opinions, and Observations.** This section is used for a more detailed and personal description of the value to you of your Co-op experience. Selected comments from this section may eventually be used to help convince future Cal Poly Co-op students of the value of this experience. (This section does not have to be read and approved by your supervisor.)

H. **Bibliography.** Include all pertinent literature references. Use the following format for listing all references:

Journal article: J. Smith and W. Davis, J. Am. Chem. Soc., 64, 392 (1970).

Book: A. Ball and V. Fitzgerald, "Catalytic Hydrogenation," Wilson Press, New York, 1973.

I. **Glossary.** If your report has a lot of abbreviations and highly specialized technical terms or jargon that are referred to on more than one page, then you should have a glossary. You should footnote the existence of this glossary early in the report. Even if you do not need a formal glossary, the first time you introduce any abbreviated term in the body of your report, you should list the complete term followed by the abbreviation in parentheses.

Example: Nuclear Magnetic Resonance (NMR) spectrometers became commercially available after 1960. NMR spectrometers are widely used in organic chemistry.

VI. **Some Tips To Follow:**

- 1) Allow enough time to carefully proof your report ("quality control").
- 2) Define all abbreviations. Remember that the report is being read by people who do not work at your company. (See comments under "Glossary" above.)
- 3) Avoid poor quality printers and paper.
- 4) Take pride in the appearance and quality of your report. Figures, tables, graphs, and all appendices should be done carefully and used or at least referred to in the body of your report (sections D and/or E).
- 5) A Table of Contents might be helpful.