Biochemistry and Microbiology Co-op—Work Term Report Guidelines

You’ll complete a work term report for each of your work terms. This is your chance to create a scientific report on a subject you choose with your employer.

A) STEPS TO CREATING A WORK TERM REPORT

1. Choose a topic by the start of your second month on the job.
2. The marker could be your coordinator, your employer, or a faculty member.
3. Write the first draft by the end of the third month of your work term and submit it to your employer for feedback.
4. Create a final version and submit it to your employer and your coordinator by the deadline. Deadlines are:
   • September 15 if your work term ended in August (unless you’re graduating in November, in which case your report is due September 1)
   • January 15 if your work term ended in December
   • May 15 if your work term ended in April (unless you’re graduating in June, in which case your report is due May 1)
5. Your work term will be marked “satisfactory” or “unsatisfactory.” Unsatisfactory reports need to be redone within two weeks and awarded a “satisfactory.”
6. Your report must be:
   • concise, organized and logical
   • accurate, consistent and complete
   • professional and readable

B) WORK TERM REPORT TYPES

Here’s your chance to write to gain experience writing a scientific paper. Your report should be useful to the employer and other co-op students.

Co-op jobs are varied, so there are four possible formats for your report. All reports should be 2,000 to 3,000 words, typewritten, double-spaced on 8.5x11 paper with margins not less than one inch.

1. Research report: Use this type if you’re reporting on a research project. Research reports should conform with accepted journal style and be written in standard scientific format (see “How to Write and Publish a Scientific Paper” by Robert A. Day, Onyx Press, 3rd Edition, 1988—available in the co-op office). This type of report includes:
   a) title page
b) table of contents
c) list of tables and list of figures
d) abstract
e) introduction
f) materials and methods
g) results
h) discussion
i) conclusions
j) references and appendices

2. **Professional report**: A combination of the strict scientific format and formal essay. This style’s often useful in consulting work, government and industry. Use this report if your work involved, for example, a literature review or a comparative analysis of methodologies or published data. This type of report communicates background information, differing views, evidence, conclusions and recommendations. It includes:

   a) title page
   b) table of contents
   c) lists of tables and figures
   d) abstract
   e) introduction
   f) discussion
   g) conclusions
   h) references and appendices

3. **Procedural report**: Use this type of report for routine work carried out in a testing or manufacturing lab, where no original experimental research is being performed. This is similar to the research report but focuses more on routine procedures and discusses the significance of the results. It includes:

   a) title page
   b) table of contents
   c) list of tables and list of figures
   d) abstract
   e) introduction
   f) standard procedures
   g) results and discussion
   h) conclusions
   i) references
   j) appendices (optional)

4. **Employer’s report**: If your employer asks for a format different from these styles, check with your coordinator. You could do a poster, website, Wiki or video.
C) WHAT TO INCLUDE

1. **Title page:** Check out this sample:

   University of Victoria
   DEPARTMENT OF BIOCHEMISTRY AND MICROBIOLOGY

   **THE EFFECTS OF LOW DOSAGE RADIATION ON HUMAN TISSUE IN CULTURE**

   Performed at

   Royal Jubilee Hospital, Victoria, B.C.

   by Jane Doe

   in partial fulfillment of the requirements
   of the Biochemistry and Microbiology Co-op Program

   Job Supervisor: Dr. A.B. Smith
   Job Title: Laboratory Assistant

2. **Table of contents:** A list that identifies all major sections of your report with titles and page numbers.

3. **List of tables:** Include all tables with their individual numbers, titles and page numbers (same format as the table of contents).

4. **List of figures:** Include all figures with their individual numbers, titles and page numbers (illustrations, tables and other supporting material not critical to the text should go in the appendices; they don't need to appear in the list of figures).

5. **Introduction:** Present your background, approach and main objectives, and explain how this work fits into the bigger picture.

6. **Materials and methods (for the scientific report):** Describe the experimental procedure and apparatus by:
   - describing the procedures in sequence, including information about the data and discussion
   - naming and referencing any procedures followed from a manual, journal or other publication
   - using the past tense
   - naming chemicals with their generic name, followed in parentheses by the trade name, e.g. sodium pentobarbital (Nembutal)

7. **Results (scientific report only):** The results form the basis for your analysis or conclusions. Organize qualitative results into subheadings and observations. Present numerical data in tables or graphs. Present measurements in metric units.
8. **Discussion:** This is the main body of your report. Information should be organized, clear and analyzed objectively. Include information that conflicts with your hypothesis by discussing alternate explanations. If possible, include references to relevant literature.

9. **Conclusions:** A brief statement of the major conclusions of your report. It should end with a series of recommendations.

10. **References:** In-text references should follow the format of a recognized journal (e.g., “This agrees with conclusions drawn by other workers (Bacq and Alexander 1961) … that irradiation actually enhances mitosis.” References should be listed alphabetically by author. Include the author, year, title, journal, publisher and relevant pages (e.g., Bacq, A.M. and V. Alexander, 1961. Fundamentals of Radio-Biology. 2nd edition. Pergamon Press, New York, 300pp.)

11. **Appendices:** These give the reader extra information (calculations, illustrations, etc.) that elaborates on your report’s text but isn’t essential.

Not sure where to start? Contact your co-op office to see samples of past reports.