

**TEMPLATES FOR WRITING A
RESEARCH PROPOSAL (Part 1)
AND
RESEARCH PROGRESS REPORT (Part 2)**



**UNIVERSITY OF
SASKATCHEWAN**

College of Agriculture
and Bioresources

**DEPARTMENT OF FOOD AND
BIOPRODUCT SCIENCES**

March 2018

Overall purposes

The purpose of this proposal document is to create a guideline of your research. The proposal document aims to help you organizing the knowledge and plans of your research, and to convey your ideas to supervisors, advisory committee members, and your colleagues at the beginning of your study. Please note that the document itself does not generate your research data. The time length spent to compile this document should be sufficient for you to understand what you are going to do, but should not be excessive to consume your precious time in the program. The length of proposal and progress report should be as short as to provide sufficient information.

Format for the Research Proposal and Progress Reports

Except the cover page, the text should use common font faces, such as Times, Helvetica, and Courier at the 12-point size. The line spacing should be 1.5- or double-spaced. (However, in the reference list, you can use single space within each reference.) The document should have the margin of one inch (2.5 cm) all around on single-sided, letter-size paper. The cover pages may have larger-size font. Don't forget to number the pages.

Consultation during Preparation

Both the research proposal and progress reports should be prepared in consultation with the supervisor(s). The supervisor(s) should approve the documents before they are submitted to the advisory committee. Thus, it is

important to allow time for several drafts before distribution to the committee.

Plagiarism

Plagiarism is a serious offense in academic writing. Read carefully the document about academic honesty (<http://www.usask.ca/integrity/pdfs/AcademHonestyForGradStudents.pdf>), and obey the guidelines given to prevent plagiarism. The maximum penalties for plagiarism are **expulsion from the university** and revocation of your thesis.

Part 1 – Research Proposal

(sample title page)

Title of proposal

title of proposal (continued)



UNIVERSITY OF
SASKATCHEWAN

College of Agriculture
and Bioresources

M.Sc. or Ph.D.

Research Proposal by

Student Name

Department of Food and Bioproduct Sciences

Submitted to M.Sc./Ph.D. Advisory Committee

Department of Food and Bioproduct Sciences

Supervisor(s)

Date of proposal submission

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(Note: The format of this document is similar to the thesis format. Thus you may be able to use this document for a part of your thesis draft.)

1. PROJECT OVERVIEW

1.1 Summary

In this section, provide a general summary of the research proposal. State what and how you are going to do the work. The summary need only be five or six lines of text. It should be brief, but cover the major aspects of the work. It is not necessary to provide background information or anticipated results here.

1.2 Hypothesis

Research hypotheses are the specific testable predictions made about the independent and dependent variables in the study. In this section, provide one or more hypotheses. Here you may need to include some background information to justify your hypothesis. Again, this is a short paragraph, maybe 10 to 15 lines long that covers the major anticipated results.

1.3 Objectives

Here, state your objectives in point form. You can number them, but in this case, you have to follow the 1.3.1, 1.3.2, 1.3.3 convention. Since it is point form, it is likely easier to simply use bullets. In general, you want to consider objectives like <<Characterize 2-D gel patterns in *Micrococcus glutamicus* under normal and high cesium concentrations>> or <<Development of a model system for studying expression of Cry3Aa in *spo⁻* mutants of *Bacillus thuringiensis* using green fluorescent protein>>. Avoid repeating your hypotheses here. Your hypotheses are what you think will happen. Your objectives are what you are planning to do.

- Objective

- Another objective

- Another objective

2. LITERATURE SURVEY (overall length 5-10 pages)

2.1 Topic one

For the sections of the literature survey, include the literature **most relevant** to your work. Provide **enough background** so that when the reader gets to the experimental section, *you don't have to explain why a particular technique, material, or isolate has been selected*. If your proposal is particularly hypothesis-driven, try to include as many references as possible to back up your methodology. That is, show that other people have been successful with the same type of study in a different system. There is no real limit to how much to write, but **try to be as concise as possible**. It is a literature survey, not a literature review. In general, **5 ~ 10 pages** should be enough to provide sufficient information. This part can be a draft for the literature review part of your thesis. You can update this part as you go. But at the stage of proposal writing, it is not necessary to be a complete literature review. Rather you should use your efforts on the experiments (and their interpretation and discussion).

2.2 Topic two

Provide a separate sub-section for a new topic. Use as many new sub-sections as needed to provide the appropriate background information.

2.3 Topic three

2.4 Topic four

2.5 Topic five

3. RESEARCH STUDIES

At the beginning of this section, you can write a general statement if it is appropriate and common to all of the studies. For example, <<In all studies outlined, the wild type strain of *E. coli* will serve as the reference isolate for controlled comparison>>.

3.1 Study 1: Short title of the study.

3.1.1 Abstract

Provide what you will do and how you will do it. Avoid explaining what you think is going to happen. A short paragraph is sufficient.

3.1.2 Hypothesis

In four or five lines, provide your expected results for this study.

3.1.3 Experimental approach

Briefly explain how the work will be done, citing references where appropriate. Be as clear as possible without defining things in fine detail. It is fine to state something like << Mutant strains will be generated using UV light according to the method of Adelberg *et al.*, 1965>>.

If there are multiple experiments within the study, then describe the experimental approach for each. Also include a statement on the experimental design and analyses and how experimental variation will be controlled or measured if appropriate.

3.1.3.1 Title of first experiment

Ibid

3.1.3.2 Title of next experiment within this study (if you need)

Ibid

3.1.4 Expected results

Provide your expected results here. Don't go too deeply into detail, but provide more specific statements than in the hypothesis.

3.1.5 Alternate strategies

Provide some alternatives to your proposed approach in case the experiments are not successful, such as <<If new lines of auxotrophic mutants cannot be generated, existing isolates from our laboratory will be used (Roy, 1991).

3.1.6 Discussion

Discuss, in relation to what you've written with respect to the literature survey and the methodologies, why you expect the results that you are anticipating. In this section, you may want to state why you have selected a particular methodology, especially if it is a non-obvious choice.

3.2 Study 2: Short title of the study

3.2.1 Abstract

3.2.2 Hypothesis

3.2.3 Experimental approach

3.2.3.1 Title of first experiment

3.2.3.2 Title of next experiment within this study (if you need)

3.2.4 Expected results

3.2.5 Alternate strategies

3.2.6 Discussion

4. RELEVANT WORK DONE TO DATE (This section is optional)

In this section, provide relevant work that **you** have done, but don't bulk up your proposal with non-relevant work. In general, if it falls within the scope of the work that you propose, you should report on it, particularly if you have figures or tables and definitely if you've published or presented your work.

4.1 Title of work done

4.2 Title for another piece of work

4.3 Title for another piece of work

5. REFERENCES

List your references here following the convention of your field of study. Check with your advisor as to the format of preference.

6. TIME LINE FOR THE PROGRAM

A nice way to lay out the timeline for your program is to use a Gnett diagram as shown below. This particular one is separated into quarter-years. It is best to arrange the time divisions according to your particular time line, so if it works better for you to divide your years into months rather than quarters, you may need to split your table into two or more tables.

YEAR	2018	2019				2020				2021				2022			
QUARTER	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Study 1	x	x	x	x	x	x	x	x	x	x							
Study 2		x	x	x	x	x	x	x	x	x	x						
Study 3					x	x	x	x	x	x	x	x	x	x	x		
Study 4											x	x	x	x	x		
Comprehensive*							x										
Permission to write																	x
Exit seminar																	x

* Required for Ph.D. students only.

Part 2 – Research Progress Report

(sample title page)

Title of progress report
title of progress report (continued)



M.Sc. or Ph.D.
Research Progress Report by
Student Name
Department of Food and Bioproduct Sciences

(If it is to discuss permission-to-write, state it here)

Submitted to M.Sc./Ph.D. Advisory Committee
Department of Food and Bioproduct Sciences
Supervisor(s)

Date of proposal submission

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Part 2 – Research Progress Report – Example title page and table of contents above. For contents, use manuscript style of your discipline. Tables, figures and graphs should be near publication quality. Include measures of experimental error where appropriate.