

BCS Honors Research Proposal Format

The thesis proposal should be approximately three single-spaced pages in length and contain the following eight (labeled) sub-sections: Introduction; Background; Specific Aims/Hypotheses; Significance; Methods; Roles; Timeline; and References. The text below describes some tips on the structure, content and organization of the various sections.

Introduction

In this section (one paragraph), your goals should be: 1) to introduce the overall problem or big-picture issue to be studied; and 2) to state succinctly what specific question you will investigate.

Background

This section should describe what is currently known in the field and what is unknown (i.e., the gap in knowledge). This part does not need to be very long (1-2 paragraphs) but it should ground the reader in the subject of your research, and make clear the gap in knowledge that your current work will fill. Remember to be concise and focus on only the relevant information.

Specific Aims/Hypotheses

The goal here is to describe hypothesis-driven work that fills a gap in knowledge. State your aim(s) in clear simple language, and include a brief summary of the experimental approach and anticipated outcomes for each aim.

Significance

This paragraph should describe why this work is important, in terms of both innovation and broader impacts. That is, state plainly what is new about your project (e.g., the knowledge, technique, or treatment that you propose to develop), and how the results of your project will benefit the people or other subjects that you mentioned in the Introduction.

Methods

The purpose of this section is to describe how the work will be carried out. It should include an overview of the entire experimental design, and a description of the methods and analyses to be used to accomplish the specific aim(s) of the current project.

Roles

This paragraph should describe the roles of the principal investigator in the work. That is, research in laboratories is usually collaborative in nature. The goal here is to state clearly which aspects of the overall design and specific methods are to be conducted by you and by others.

Timeline

In text or a table, describe the timeline of the project. The goal here is to demonstrate that the work can be done within the project period, and is not over ambitious.

References

List in alphabetical order the references cited in the proposal. Your in-text citations should have two parts: last name(s) and date of publication (e.g. Smith 1973 or Smith and Jones 1973 or Smith et al. 1973).