

## Anatomy of a Thesis; Thesis Preparation Guidelines

The thesis should follow the format described below. However, in some cases you and your mentor may decide to write the thesis project up for publication. In this case, the formatting required by the journal you wish to submit to, is entirely appropriate. See the desired journal's "Instruction for Authors" webpage for more information.

### 1. Abstract

Include a short (one-page) summary at the beginning of the thesis. An abstract is a fully self-contained capsule description of the thesis paper. It should contain parts 2-5 described below, with less detail as is used in the body of the thesis.

### 2. Introduction and Literature Review

This section is intended to introduce the questions addressed in the thesis. *What question did you ask? What is the rationale for asking this question?* Discuss gaps in our scientific understanding. *How will your experiment attempt to fill these gaps?* The introduction should provide a review of the relevant literature.

### 3. Materials and Methods

This section should describe, in detail, the materials and techniques used in the experiment. This should include experimental animals and statistical analysis. An interested colleague should be able to replicate your experiment based on the details in the methods section. If some of the techniques that you used are *identical* to that previously reported in the literature, you may insert the citation of this work into your methods section.

### 4. Results

Here is where you describe your experimental findings. You may also add to your narrative of results by adding figures and/or tables of the results. Figures and/or tables should be numbered and have legends. Figures and/or tables should be placed near where they are first referred to in the text.

### 5. Discussion and Conclusions

In this section, you will provide a summary and interpretation of the thesis findings. Discuss the conclusions that can be drawn from the data in light of the findings of other investigators, particularly if the conclusions appear to be in conflict with those of other labs. Describe where the field can go from here, based on your data.

### 6. References

All references cited in the text should be listed in a bibliographic listing at the end of the thesis.