

Thesis Format

In form, the thesis is a lengthy experimental, design, or theoretical report, with a problem-method-results-discussion structure. This recurrent hypothetical-deductive pattern of developing a thesis to solve a problem and then constructing a methodology and testing for results is common in research writing. When you begin to write the first draft of your thesis, try to salvage useful material for problem statements, methodologies, and bibliographies from your thesis proposal. Make use of your laboratory notebook for detailed accounts of your procedures.

1. Front Matter

The front matter frames the thesis work. It includes these elements:

Title page. Your department will have a standard title page form you are required to follow. The title should be informative, contain keywords, and reveal the topic of the thesis. Include the title, author, thesis supervisor, place, and date.

Abstract. Briefly state the (1) research problem, (2) methodology, (3) key results, and (4) conclusion. Generally, abstracts are between 100 and 150 words--roughly 5-10 sentences.

Table of contents. List the key subject headings and subheadings of your thesis with their page numbers. Number the front-matter section in lowercase roman numerals. Be sure to list acknowledgments, appendixes, and bibliography.

List of figures. Include the figure numbers, figure titles, and page numbers.

List of tables. Include the table numbers, table titles, and page numbers.

Nomenclature (optional). List unfamiliar terms, symbols, acronyms and their meanings.

2. Body

In the thesis body, you provide the introduction, narrative, and analysis of your work. The body includes these elements:

Introduction. State (1) the purpose of the investigation, (2) the problem being investigated, (3) the background (context and importance) of the problem (citing previous work by others), (4) your thesis and general approach, and (5) the criteria for your study's success.

Theory. Develop the theoretical basis for your design or experimental work, including any governing equations. Detailed calculations go to an appendix.

Materials, apparatus, and procedures. List and describe key materials and apparatus. Then describe the procedure in enough detail that others can duplicate it. For design studies, this section includes component design, fabrication, assembly, and testing procedures. Use illustrations.

Results. Present the results, usually with accompanying tables and graphs. Characterize the patterns and quality of the results and estimate their accuracy and precision. Detailed data go to an appendix. Use analytical graphics.

Discussion. Discuss the meaning of the results, stating clearly what their significance is. Compare the results with theoretical expectations and account for anything unexpected.

Conclusions. Review the results in relation to the original problem statement. Assess the success of the study in light of the criteria of success you gave in the introduction.

Recommendations. If applicable, recommend directions for future work.

3. End Matter

The end matter is mainly referential material too detailed to fit well in the main narrative of work done. It includes these elements:

Acknowledgments. Acknowledge assistance from advisors, sponsors, funding agencies, colleagues, technicians, and so on.

Appendixes. Provide detailed calculations, procedures, data in separate appendixes. Give each appendix a title, a letter (Appendix A, B, C), and an introductory paragraph.

Bibliography. List alphabetically any works referred to in your study. Follow the bibliographical and footnote formats of your department or of a prominent periodical published by a professional society in your field.