

# Literature Review Guide<sup>1</sup>

A stand alone literature review should include the following:

- (a) A cover sheet indicating the title, your name and a table of contents which, in addition to page numbers, includes the word count for each section.
  - (b) An abstract limited to 200-300 words.
  - (c) An introduction (limited to 750 words) which includes a description of the technical problem, why this problem is important in the context of ongoing work, and an outline of the major lines of research that have been performed to date on this problem and their limitations.
  - (d) A critical literature review (limited to 2000 words) which summarizes the major approaches that have been used to date in addressing the problem area. The contribution of each cited work must be clearly presented with emphasis on how it relates to work performed by others before and after the date of its publication. This review must address the significance of any assumptions or other limitations in the cited work. The experimental and/or analytical nature of each citation and the methodology that was used by the authors in order to justify their conclusions should be clear. Point out those methods or procedures that are particularly unique or that have made seminal contributions to addressing the problem. Also point out errors, omissions, or incomplete solutions (not all published work is correct or as complete as would be desired). Comment on any discrepancies between publications if any are found. The review must be presented in a logical fashion. The document may contain a brief description of possible research endeavor to extend the field beyond the state-of-art evident in the literature review. Such a description should be concise. Remember - the structure of a literature review is not a research proposal; it must accent a review of present literature.
  - (e) A summary and conclusions (limited to 750 words) which, besides summarizing the above, also include those aspects of the problem area that remain to be solved or have not been covered by the literature review.
  - (f) A bibliography which lists all cited references. Standard forms of citation should be used. References that are not cited in the review cannot be included.
- This document should be written for an engineering audience that is not necessarily familiar with the specialized field or jargon of the problem area.
  - It is expected that you will use word processors for preparing your document and that your document will conform to accepted professional standards. It is your responsibility to make sure that the limits indicated above are not exceeded. Sections that are longer than the specified limits are not acceptable and are sufficient cause for rejection of the entire document.
  - Figures may be included where relevant. Titles for each figure are expected. If figures are drawn from other sources, their source(s) must be clearly cited in the figure title and in the text. The point made by each figure must be clearly indicated in the text.

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<sup>1</sup> The content of this guide is adapted from the 2004 Graduate Student Handbook for the Mechanical Engineering Department at the University of Minnesota.

- Summary tables are encouraged where appropriate. This offers a concise means of comparison between various publications. Tables must be clearly labeled and should be self-explanatory.
- Relevance and physical significance of any equations that are included must be clearly explained.
- It is expected that you will personally read, evaluate, and summarize all cited references. You should not base your work on reviews that are published in the literature. If significant review articles exist on a topic, they should all be clearly identified as such in the reference section. No review article may be used as the "seminal contribution." Plagiarizing work done by others is forbidden and may result in disciplinary action. It is assumed that you will read and evaluate more books and papers than you cite in the final review. It is up to you to decide which papers should or should not be included.
- Since certain documents may not be in the library or accessible on campus, it is highly recommended that you start to work on this examination early enough to allow sufficient time to collect necessary references. Determination of which references are significant and the acquisition and interpretation of these references are solely your responsibility. (Please note that the interlibrary loan service can take a very long time to borrow or copy a document not available here.)