

Guidelines for Final Paper MCDB 3651

Your paper should read like a review article from the literature. In addition to the sections listed below, your writing should be logical, grammatically correct, and not contain spelling errors. In addition, I will be looking for you to display a good understanding of the topic, with evidence that you have thought carefully about it, rather than simply restating what you have read. Finally, although you may work closely with your group members on your presentation, your paper must be your own work, in your own words. Length of the paper is not critical, but less than 5 pages will indicate to me that you did not put in sufficient effort.

Important note: Do not repeat or quote text from the articles you read. This is a writing exercise and you should use your own words.

A note on style

Some people find it difficult to write a review paper following the Abstract, Intro, Methods, Results, Discussion format usually used for original research articles. It is fine with me if you choose to organize your paper differently. For example, you may prefer to discuss papers one by one, including their rationale, hypotheses, results and interpretation in one section, and then move onto discussing another paper. Or, you might choose to have sections on different subtopics, in which you describe the results and discussion of several papers in each of these subtopics. In the end, the organization of the paper is up to you, but all of the points I describe under Introduction, Results and Discussion should be addressed in a logical and clear way within the paper. The best way to write a good review article is to read a few (even ones you've read for other classes).

Summary/Abstract: (10 pts):

Give a brief summary description about the topic you have chosen, including a quick overview of what you're going to talk about in the paper, and the major conclusions. Use this section to capture the attention of the reader.

Overall grammar, spelling, flow (10 pts):

- Use complete sentences and check your overall grammar.
- Proof-read to ensure that your sentences are understandable.
- Use topic sentences and concluding paragraphs.
- Check to make sure you have few to no spelling or grammatical errors.

Introduction (15 pts)

(Note: many review articles essentially combine the Summary and Introduction. If you would like to do this for your final paper, that's fine).

- Review in more detail what is known about this topic (you will likely need to expand from what you already included in the Summary above).
- Describe why the research is relevant, including the significance of addressing the research questions.

- Describe the different kinds of experiments that have been carried out on this topic, what main questions have been asked and answered over the years, and what questions are still unanswered at the time of your review.
- Fit your topic into a larger context and describe its importance.

Methods and Results (15 pts):

- Discuss the rationale for doing the experiments you discuss in the paper, and what the scientists' hypotheses were.
- Describe what techniques (methods) were used to answer the questions posed, discuss controls used, and why they are important.
- You may include any figures or tables you have found in review or original articles (make sure to reference them) that you think are especially relevant and helpful to a person reading the paper.
- Describe the key findings of the papers you read, drawing parallels between the different experiments (or pointing out differences).

Summary/Discussion (18 pts):

- Compare the results (similarities, discrepancies, etc) of different papers
- Include your own interpretations of the data presented
- Describe how the results help answer or provide support for the research question
- Discuss any unanswered questions, discuss problems in the collection or interpretation of data, and other possible explanations/interpretations of the results, if appropriate.
- Speculate about future areas of research and present additional experiments you can imagine being useful for answering the questions you still have on this topic

References (7 pts):

- At least 3 original articles
- At least 3 additional articles (a review article, popular press, etc.). DO NOT USE WEBSITES.
- References must be cited throughout the paper, and at the end in an actual References section. You can use one of two formats for citations: footnotes (sequentially numbered), or alphabetical. Please use a standard format, copied from a scientific journal if you do not know what to do.
- The more you read, the more you will know and understand, so more references are better than fewer