

Adapted from: <http://www.uwlax.edu/biology/communication/ReviewPapers.html>

**WHAT IS A REVIEW PAPER?** The **purpose of a review paper** is to succinctly review recent progress in a particular topic. Overall, the paper summarizes the current state of knowledge of the topic. It creates an understanding of the topic for the reader by discussing the findings presented in **recent research papers**.

**A review paper is not a "term paper" or book report.** It is not merely a report on some references you found. Instead, a review paper synthesizes the results from several primary literature papers to produce a coherent argument about a topic or focused description of a field.

**Examples of scientific reviews can be found in virtually every scientific journal.** We will post some to Blackboard for use as guides. You should read some review articles to get a sense of how your paper should be organized. Scientists commonly use reviews to communicate with each other and the general public. There are a wide variety of review styles from ones aimed at a general audience (e.g., *Scientific American*) to those directed at biologists within a particular subdiscipline (e.g., *Annual Review of Physiology*).

**A key aspect of a review paper is that it provides the evidence** for a particular point of view in a field. Thus, a large focus of your paper should be a description of the data that support or refute that point of view. In addition, you should inform the reader of the experimental techniques that were used to generate the data.

**The emphasis of a review paper is interpreting the primary literature on the subject.** You need to read several original research articles on the same topic and make your own conclusions about the meanings of those papers.

**CHOOSING AND RESEARCHING A TOPIC** You may choose any science topic you are interested in. Use the library or other databases. Focus your topic to maximize the search engines. We can help!

### **ORGANIZING THE PAPER**

Your paper should consist of the following general sections.

Review articles contain neither a materials and methods section nor an abstract.

Use topic headings. Do not use a topic heading that reads, "Body of the paper." Instead the topic headings should refer to the actual concepts or ideas covered in that section. Refer to other review articles to see how this is done.

Sections	What it should contain
<b>Introduction &amp; Background</b>	<ul style="list-style-type: none"><li>• Title should include the word "review".</li><li>• Make it brief (2 pages would be appropriate).</li><li>• Grab the reader's interest while introducing the topic.</li><li>• Explain the "big picture" relevance. You must choose a topic that you can provide depth on and not just breadth- for example, you cannot do a paper on "biotechnology", this topic is too broad.</li><li>• Provide the necessary background information.</li></ul>

<b>Body of the Paper</b>	<ul style="list-style-type: none"> <li>• Describe the types of experiments done.</li> <li>• Provide brief overview of how experiment was conducted (number of subjects, how long the study was, etc BUT not exclusion criteria and not how to do it step by step)</li> <li>• Include corresponding data (NUMBERS) particularly when results show significant differences. Do not include all data when there is no significant difference, just summarize.</li> <li>• All figures and tables need a caption explaining the figure. All Figures or Tables should be numbered. These should communicate important information as if the paper did not explain in detail. The paper should reference these but also stand alone. Blah blah blah (Figure 1). Blah blah blah (Table 1). You can create your OWN figures and tables to integrate data, especially to summarize.</li> <li>• Integrate conclusions from multiple studies. Tell how they agree or disagree and provide possible explanations. You can suggest how future or ongoing studies might resolve disagreements.</li> <li>• Unlike the presentations, you will not dissect each figure from each paper, but rather focus on the “big picture” each paper presents.</li> </ul>
<b>Mercy Values and Ethics</b>	<ul style="list-style-type: none"> <li>• In order to meet the needs required of all Capstone papers at the college, you must address the four values of hospitality, justice, service, and mercy with regard to your paper topic. In addition to the values, you might also address ethical concerns such as use of human subjects, placebos or controls, or other concerns relevant to your topic.</li> <li>• You can either label these sections independently or integrate them into other sections of the paper.</li> </ul>
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>• Succinctly summarize your major points and critically evaluate the research that has been done.</li> <li>• Point out the significance of these results.</li> <li>• Discuss the questions that remain in the area.</li> <li>• This section should not include new data or references.</li> </ul>
<b>Literature Cited</b>	<ul style="list-style-type: none"> <li>• The literature cited section should begin on a new page.</li> <li>• A 20 page paper will require at least 20 sources.</li> <li>• Use sequential numbering. It is recommended that you use author last names until your paper is fully organized!</li> <li>• All references must be cited!</li> <li>• Here is a summary of citation style:  <a href="https://www.sciencemag.org/site/feature/contribinfo/prep/res/refs.xhtml">https://www.sciencemag.org/site/feature/contribinfo/prep/res/refs.xhtml</a></li> <li>• Single space within each reference but double space between references.</li> </ul>
<b>General</b>	<ul style="list-style-type: none"> <li>• Typed! ☺ Double spaced, 1 inch margins, page numbers, 12 pt font</li> <li>• The 20 pages can include mercy and ethics but not the literature cited page(s).</li> <li>• We will be using “turnitin.com” – don’t plagiarize!</li> <li>• Proof your paper! You are our best students!!! We want top quality work!</li> <li>• We will use the Capstone rubric to grade the paper. The score you earn out of 380 points will be worth 35% of your overall course grade.</li> </ul>