Review paper guidelines

Writing a review article is tremendously challenging and enormously rewarding. The thorough understanding that you must gain in order to write authoritatively and concisely about a topic provides both the challenge and the reward: in reading a selection of papers on a topic, you must often struggle through technical jargon and poorly presented science, but you gain insights from examining papers’ strengths and weaknesses, and from the contrasts and comparisons you encounter as you read.

For E11 review papers, you must read at least 10 scientific papers. If the topic is new to you, begin with some general references—book chapters or review articles—and decide what specific aspects of the research are most interesting to you (a new method as contrasted with an old? A particular class of problem within the bigger field? The difficulties with a common method that point to the need for innovation?). This will guide your search for additional articles. Keeping your focus narrow will enable you to write an engaging and insightful piece, and will help you sensibly limit the amount of reading you will need to do. I strongly recommend that you consult your mentor for advice on appropriate sources.

Review articles can take a number of forms: some may be a simple chronology of progress in a field; others may focus on new directions or methods for old problems; others might highlight the advantages of one approach to a problem over another. Whatever approach you decide to take, having a clear THESIS is key to the success of the piece: simply stringing together the summaries you write for homework assignments will not be successful. Decide WHAT you want to say with the information before you start writing the paper.

Also remember WHO you are writing for. Research articles are usually written for scientists within a particular field, but review articles are more typically for scientists in general. You must include the background information your readers will need in order to understand the science, and you must write in an engaging manner so that scientists will read your article even though it is out of field. Even if you are writing for those within your field, you must tell a complete story including background information necessary to put the piece in context, even if your readers are already familiar with the science itself.

Remember that understanding the material is crucial to explaining it. If you are not sure you understand it correctly, please contact your mentor for clarification.