

## Writing a scientific research proposal

Title of proposal	<ul style="list-style-type: none"> <li>- This should reflect a specific summary of your proposed work.</li> </ul>
Abstract (120-150 words)	<ul style="list-style-type: none"> <li>- What are you researching and why?</li> <li>- Significance of the proposed research.</li> <li>- How will you be addressing the research question?</li> <li>- Explain the experimental method, including materials/apparatus and data-gathering procedures, where applicable.</li> <li>- The expected findings (hypotheses) and broader impacts.</li> </ul>
Introduction	<ul style="list-style-type: none"> <li>- Statement of the problem: The problem itself, stated clearly and with enough contextual detail to establish why it is important and how it contributes to the existing knowledge.</li> <li>- Provide relevant background material by reviewing previous studies directly relevant to the proposed research, highlighting essential details, findings and conclusions.</li> <li>- Guide the development of your research questions by making a logical connection between previous work and the proposed research. Make it clear why previous work needs to be continued and how your work differs from previous studies. Mention any shortcomings, gaps, puzzling findings etc.</li> <li>- Orient the reader to the next section to elaborate on the research procedures you will employ.</li> </ul>
Description of proposed research	<ul style="list-style-type: none"> <li>- How will you conduct this research and address the questions you have outlined?</li> <li>- Describe your proposed experiment, data analysis techniques or approach. What processes, research skills or methodology are you going to use?</li> <li>- What kind of equipment and supplies be necessary for the project? List the materials you will need, where you will buy it from, and the estimated cost for each item (optional).</li> <li>- Do you anticipate any problems that you may think would arise during project? If so, mention and suggest solutions.</li> <li>- Be realistic on what can be accomplished and ensure there is connection between the objectives and research methods.</li> </ul>
Expected results	<ul style="list-style-type: none"> <li>- Explain what you are hoping to find from your proposed research and the timeline of your project.</li> <li>- What are the far-reaching effects of your study? How does your proposed research advance knowledge?</li> <li>- Broader impacts of your research (e.g., benefits to the society).</li> </ul>
Bibliography	<ul style="list-style-type: none"> <li>- Cite all resources and references used in the writing of the proposal.</li> <li>- For reference examples, style and grammar guidelines of APA style: <a href="https://apastyle.apa.org/style-grammar-guidelines">https://apastyle.apa.org/style-grammar-guidelines</a></li> </ul>