

Thesis Summary – Guidelines for suggested length and content

Overall Length	1-2 pages, single-spaced, not including figures		
COMPONENTS	<i>Suggested minimum length</i>	<i>Guidelines</i>	<i>Tips</i>
Introduction and Knowledge Gap	1-2 paragraphs	<ul style="list-style-type: none"> • Guiding question(s): what problem/need are you addressing? How do <u>your specific contributions</u> fit into the <u>big picture</u> of your mentor/lab's work? • Establish the importance of the field or problem being addressed • Introduce any major methods or approaches to be used in the proposed research, and explain their strengths or advantages • Concisely state the specific questions or problems to be addressed 	<i>In most cases this can be taken unchanged from your original thesis proposal</i>
Research Overview	1 paragraph	<ul style="list-style-type: none"> • Guiding question(s): what is the <u>take-home message</u> of your project, and based on which <u>high-level main findings</u>? • Provide a succinct overview of the outcomes and central conclusions of your research 	<i>Update the text from the proposal to reflect what you actually did</i>
Main Results	2-3 paragraphs	<ul style="list-style-type: none"> • Guiding question(s): what are the <u>general methods and major findings</u> that allow you to reach your main take-home conclusion? • Include a brief statement indicating which data presented are your independent contributions and attribute data provided by others accordingly • Make sure to explicitly reference figures when presenting and interpreting data 	<i>Use this section to introduce the key figures that you plan to include. You may use text from your thesis. Focus on the most interesting results.</i>
Impact	1-2 sentences	<ul style="list-style-type: none"> • Guiding question(s): how do your findings <u>tie back to the larger problem</u> from the introduction, and <u>why is this important</u>? • Conclude by describing the impact and significance of your work 	<i>This can be taken from your thesis proposal if your original plan succeeded, or adapted from your proposal based on your findings</i>
Figures	1-3 separate figures	<ul style="list-style-type: none"> • Included figures should display <u>key data</u> from your thesis needed to <u>support your takeaway conclusions</u> • Each figure must include a caption 	<i>Check that all figures are referenced in main results text</i>

Evaluation – suggested general rubric

Calculate overall score as sum of (criterion score x criterion weight)

Criterion (scored out of 5)	Weight	Excellent (5/5)	Acceptable (3/5)	Needs work (1/5)
<p>Scientific understanding</p> <p>Does the student demonstrate an accurate and thorough understanding of the research field? Is key relevant background included?</p>		Generally accessible and specific background both provided, accurately represents the field and the findings	Most elements present but extraneous info included, or background begins at an overly specialized level; context of the work less accessible to a naïve audience	Elements missing / lots of irrelevant information, even an expert in the field would have difficulty understanding
<p>Data presentation</p> <p>Are the general results/ major methods that lead to takeaway message clear? Are the data represented in figures clearly labeled and understandable?</p>		Provides the only major approaches and key results (not minor findings), and supported by the data shown in figures	Methods and results include slightly excessive/insufficient detail; reader must work to understand figures connection between results and proposed conclusion	Results shown without sufficient interpretation or do not seem supported by the data; figure design or data presentation choices hinders results interpretation
<p>Significance</p> <p>Is the important of the research question established? Are the results and conclusions discussed in the context of the larger research question?</p>		Goes one step beyond the results to what they mean and why they are important. Uses signaling words to indicate this is speculation.	Implication goes beyond the results, but reader would have to be an expert to understand why it is important.	No implication is present, implication is far beyond what can be concluded, or implication is written in a way that is seems to be a result.
<p>Structural organization</p> <p>Are elements presented in a logical order with clear reasoning?</p>		Elements are in correct and logical order, linking phrases provide logical connections.	All elements are present, but somewhat disorganized.	Multiple logical leaps. Reader must ignore extraneous info and/or rearrange info to understand the writing
<p>Tone / writing style / presentation</p> <p>Is the writing clear, cogent, and concise with minimal jargon?</p>		Appropriate, simple, quantitative words. Minimal jargon. Sentences mostly in active voice with parallel structure	Occasional suboptimal choices in word choice or sentence structure.	Glaring errors in word choice or sentence structure that noticeably distract / detract from understanding the writing
<p>Attribution of work</p> <p>Are the student's specific contributions clearly highlighted (compared to that of their mentor/advisor)?</p>		Easy to understand the student's contributions, work done by others is explicitly attributed	Some ambiguity in terms of what was done by the student in collaboration with a mentor as opposed to independently	Unable to tell what work was done by the student independently