

Tips for Term Paper



Tips for Term Paper

Bioengineering 6000 CV Physiology

High Level Structure

- Title
- Introduction
- Background
- Methods
- Results
- Discussion
- Conclusions (optional)



Tips for Term Paper

Bioengineering 6000 CV Physiology

Structure: Title

- Be specific: title should give the reader a good idea of what they will find in the paper
- Put most important words at the beginning
- Find balance between length (too long is clumsy) and specific information (too vague is not effective)
- Examples:
 - “Sudden Cardiac Death From Non-Traumatic Myocardial Wall Impact: Commotio Cordis”
 - Original: “How Undiagnosed Adults with Congenitally Corrected Transposition of the Great Arteries and Tetralogy of Fallot Survive”
 - Better: “Survival of Undiagnosed Adults with Congenitally Corrected Transposition of the Great Arteries and Tetralogy of Fallot”



Structure: Intro

- Describe the overall topics right at the start
- Indicate some context and motivation (why is this topic interesting to you)
- Touch briefly the missing pieces of the state of knowledge
- Summarize what the rest of the paper will discuss and bottom line conclusion



Structure: Background

- Overview of the main topics that one needs to know to appreciate the specifics to follow
- Keep as concise as possible but with sufficient depth for the audience by staying focused on the topics to follow
- Should set up the reader with enough knowledge to appreciate the methods and, somewhat, the results



Structure: Methods/Results

- This is the place to describe the limits of knowledge and the research that are defining one or two of them
- Can be organized by
 - Method 1
 - Method 2
 - Results 1
 - Results 2
- Or by
 - Methods 1
 - Results 1
 - Methods 2
 - Results 2
- Include just enough detail to appreciate results
- Organize not by chronology or even by paper but to explain and support main goals of paper.



Structure: Discussion

- Evaluate and analyze the results from some broader themes
- Integrate material
- Include mechanisms!!!
- Identify weaknesses or omissions in the studies
- Identify open questions and some possible answers



Volume of material

- Be wary of including too much
- Tell a simple story very well rather than a complex story moderately well.



Outline Suggestions

- Pick a title as early as possible and revise it as you go; try to be focused even with the title
- Include section and subsection names in the outline
- Level of detail should provide at least one bullet point for each paragraph
- Work with the outline until the structure of the paper is complete and clear
- Update the outline as you write--it will change



Logistics

- Do not use double column or other fancy layout; use single column, 1.5 times normal line spacing
- Create and use a bibliography
- Use proper scientific prose style
- Include page numbers
- When inserting figures from other sources
 - use good quality electronic or paper scans
 - touch up as needed to generate nice quality
 - always include reference to source in the figure caption
 - rewrite any original captions so that its contents are clear and to establish context in the new setting of your paper



Last Thoughts

- Make sure to include mechanisms; everything else is optional
- Considering your audience--your fellow students--simplify as necessary
- Cover **less** material **very** well rather than **more** material only **moderately** well. Less is the new more.

