

CH424 – Proposal Writing Guidelines

Use the following guidelines as you prepare your research proposal for evaluation. The proposal is due 1 day before the beginning of the second lab period so that evaluation and modification can occur during the second lab period. All chemicals will be order during the second lab period after final approval of the proposal is made. As you write, be sure to cite the original literature and any other print or online information source. Proposals lacking a sufficient grounding in the literature will be returned for further modification.

History – Provide 1 to 2 paragraphs of some history or definitions of the theme. When did it originate? When did scientists first begin to classify their work according to the theme? What are some early works related to the theme?

Presentation of your idea – Provide 3 to 4 paragraphs in which you sell your idea. What is your research question or goal? How did you formulate the knowledge gap? What is the intellectual merit of this study?

Significance – Provide 2 to 3 paragraphs describing the significance of further study in this area. Why is this an important study? What is the related previously published research? Whom will the work benefit? What impact have past contributions made to society? How will this study push the boundary of knowledge? What is the broader impact of the work you're proposing?

Tentative procedure – Provide 2 or 3 paragraphs on how you will implement your study. What methodology will you use to help answer your goal? What species will you analyze? How will you validate (prove accuracy and precision) your method? What types of data analysis will you employ? How do the various aspects of the procedure relate to each other?

Budget – Outline a budget that includes chemicals and associated costs (through Sigma-Aldrich), instrument time, glassware and supplies (including specialty equipment like SPE).

Deliverables – Outline what end products will be derived from this project. How will you share your results? What will you need to likely include in any written or oral documentation? Will you need IRB approval? What is IRB approval?

Timeline – Estimate when various sections of the project will be started and completed within the 14 week semester. Be sure to account for holidays and breaks.