Research Proposal Guidelines

Your Research Proposal has to adhere to the specific format provided in the RFP as well as additional criteria outlined below. For an efficient managing of your references and all the literature related to your research, *EndNote* is an excellent tool freely available to you.

**Bring two copies of the final printed version to class, one for your instructor and mentor, and provide a PDF file of the report to the course instructor by email.**

**Proposal:** Attach a copy of the RFP and any formatting guidelines to each report.

**Revisions:** submit the marked up drafts and feedback forms with your revised assignment.

**Formatting Guidelines:** In addition to the criteria set forth by the target funding agency, the following criteria also apply.

**Title Page:** The title page should provide the following information:

- An appropriate title not to exceed two lines
- Full name of student author
- Full name of mentor
- Complete institutional affiliation
- Course number, semester, and date of submission
- Proposal format being used (e.g., Formatted for submission to UAF URSA)

**Hypothesis/ Overarching goal/ Specific aims:** Your proposal must clearly articulate the overarching goal of the research, specific aims, and a testable hypothesis.

**Figure:** Your proposal must contain at least one figure accompanied by a descriptive caption and be referenced in the text. The figure may have several parts. The following are some figure ideas:

- Preliminary data demonstrating proof of concept.
- Work flow for project
- Conceptual model of project / hypothesis to test
- Schematic showing experimental setup or procedure
- Others? Anything that will help sell your proposal.

All figure should be of journal quality, i.e. not default excel plots. Export excel files into photoshop or powerpoint and make sure your resolution is sufficient for all details. Make sure each axis is clearly labeled including units. Clearly labeled peaks, bars etc and ensure sufficient size of symbols. For line art TIFF format is commonly used for simple black and white illustrations (photoshop). Power point files are also acceptable. Ensure a resolution of at least 600 dpi. For grayscale illustrations use TIFF or JPEG format (photoshop, power point) and at least 300 dpi resolution.

**References:** Format references according to the guidelines outlined in the request for proposals or other appropriate format for your references.
Research Proposal Feedback

Report author: ________________________________

1. Skim the proposal to get the gist of what it is about.
2. Summarize the proposal - What problem are the authors proposing to tackle? Is it clear this is an important problem? Is a testable hypothesis clearly stated and testable using the methods suggested? How will they go about it and is their plan feasible? Are the anticipated outcomes reasonable? Were you able to grasp these points easily?

3. Skim report examining structure and format.
4. Format and structure - Is this paper easy to read? Is it formatted correctly?

5. Read the report in detail. Write on the paper correcting spelling, grammar, organization, etc.
6. Recommendation for funding - State if the proposal should be funded and why.

   Absolutely fund   Fund if money available   Do not fund

State the reasoning behind your recommendation.

7. Is the figure referenced in the text and well-integrated with the proposal?
8. What is the importance of this research?

9. What is the testable hypothesis proposed? Do the specific aims follow directly from the hypothesis or overarching goal?

10. What is the general approach to research? Do the experiments outlined clearly test the hypothesis? Do outlined experiments seem logical, well thought out, and likely to succeed?

11. What are the anticipated outcomes? Do they directly follow from the outlined experiments? Will these clearly expand the body of knowledge?

12. Positive feedback- What aspects of the proposal facilitated effective communication? You MUST say something nice, truthful, and thoughtful! This can include the way something is described, a conceptual model, formatting, etc.

13. Constructive feedback- How can the authors revise the proposal to make it more effective? These suggestions can be general or specific. But, you must provide suggestions for improvement.
CHEM 294 Research Proposal Rubric

___ /5 Title page- complete and appropriate
___ /10 Background
___ /10 Overarching goal and specific aims
___ /10 Testable hypothesis
___ /20 Proposed Experiments connection with hypothesis
___ /20 Figure
___ /5 References
___ /5 Proper, attractive formatting
___ /10 Convincing Arguments
___/100 pts Research Proposal

___/50 pts Revisions- suggestions incorporated
___/150 pts total