

Mycology Research Proposal
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Semester projects and College of Science Scholarly Activities Committee (SAC) proposal

Grading breakdown:

Literature review	50 pts
Submitted proposal	100 pts
Poster presentation	50 pts

Literature review:

20 primary sources related to your question

Sources must be shared in a Zotero library and must include:

- stored copy of full manuscript
- abstract
- personal notes on how this paper contributes to your proposal

Keep in mind the following questions:

What research has been done on this topic?

What unanswered questions are left open?

What methods did they use? Could you use similar methods?

Experimental design

We will work on this together. It's a creative and iterative process. The easiest way to start is to work backwards. Imagine a scientific figure showing some analysis.... What is the ONE figure you would like to generate as a result of this project? What are the axis labels? What pattern would you hope to see if your experiment works? What would you expect to see if it fails?

We're gonna make some fake data to create that figure. In the process, we will see what data we need to collect. That will inform our design.

Be ready to compromise between time/effort/practicality/money and your perfect project.

Proposal

Your rough draft will be publicly torn apart by your peers and then me. That's a service, not an injustice. You will have a minimum of two rounds of revisions. Once you're sure it's ready, you will read it aloud in class.

Points will be awarded **not for getting** the grant, **but for submitting** it once we're happy with it.

Fill out the proposal form...

Link to proposal form: https://www.uvu.edu/science/student_funding.html

Evaluation criteria

From the SAC instructions:

1) How much will the proposed work benefit faculty/UVU? (This will largely depend on the quality and significance of work being proposed)?

Don't worry about "faculty" here. Focus on how sharing your research contributes to our biology program and other students.

2) How much will the proposed work benefit students (number of students involved and depth of student involvement)?

Be explicit, and tell them how this project will benefit YOU. Career goals?

3) How well written and organized is the proposal?

Intro:

This isn't an English essay. Make it easy to read. Bullet points are good. Did you include relevant in-line citations to back up your points?

Project overview:

Explain a broad problem

Identify a narrow gap in knowledge

Convince the reader that filling that gap will help address the broader problem

Tell them how you're going to "fill the gap"

Benefits:

Specifically but briefly explain how this project benefits you and UVU. Use bullet points. Are you going to present this at Showcase or UCUR? Gonna give a talk at the end-of-semester colloquium?

Methods:

Show, don't tell, if you can. Make a figure that shows your experimental design.

Describe your "experimental unit" and how you will measure it.

Explain techniques and equipment/materials.

Walk the reader through the whole process, including analysis steps.

Give a "plan B" for how you will deal with things not working.

Include your hypothetical figures if you want.

Dissemination:

List all the ways that each member of the team will share your process and results with others.

Materials:

We will find prices for these in class. Create a spreadsheet to include in your proposal.

4) How complete is the budget narrative?

Did you provide sound justification for each item you're asking for?

Did you explain why some stuff that you need for your project **aren't** being asked for? (e.g., provided by another group, existing equipment and supplies)