

Kurt Frieauf Instructions to URC Presenters

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Instructions to URC student presenters

Thank you for submitting a research grant proposal to the Kutztown University Undergraduate Research Committee. We generally have a full agenda for each meeting, so we will need to stick to the scheduled times tightly. The following are some suggestions for you to ponder while preparing your presentations.

WHO: Student researchers present their proposals to the committee individually. Faculty advisors may wait outside, but are not allowed in the conference room during the meeting.

WHEN: Presentations take place during the open hour from 11:00 to 11:50 a.m.

WHERE: Boehm Science Building conference room 100 (by the entrance under the Elasmosaur) next-door to the electron microscope laboratory.

DRESS: This is a serious, professional presentation, so researchers should dress in professional attire – business casual, not t-shirt/jeans. “Business casual” (i.e., not sweats/t-shirt, but you don’t need to get a tux or gown, either.)

TIME: You have a total of 5 minutes, which means you need to be very efficient and concise. This is actually good **practice** for presentations at meetings where you must present background, methods, results, and implications of your completed research project in a time commonly limited to 10 or 12 minutes!! You definitely want to practice your talk several times to make sure you fit within the time constraints and so you’re comfortable with the delivery.

CONTENT: As with any proposal, you need to convey several key points. Try to imagine things from the perspective of the reviewing committee. The purpose of this presentation is for you to demonstrate to the committee your knowledge and understanding of your research project, demonstrate how well you designed and executed the research, and demonstrate your ability to “think on your feet” when answering questions about your project.

FORMAT: There is a computer hooked up to a digital data projector for PowerPoint presentations and a dry erase board in the room.

YOUR AUDIENCE: The members of the committee represent the four colleges of the university. Although we may not be specialists in your particular field, we all earned Ph.D.’s and have a wealth of experience in research. We will have read your proposals prior to your presentation and probably researched a bit to ensure we fully understand the relevant methods and principles of your project. Please limit highly specialized jargon to an appropriate level.

Do not think of this as an exercise in “dumbing things down,” because concepts

perceived as shallow will be deemed unworthy of funding. Instead, focus on communicating your ideas clearly, concisely, and completely, carefully limiting highly specialized jargon to an appropriate, minimal level, and explaining the meaning of esoteric terms when you use them. Committee members will vote to **reject** funding for projects they do not understand.

You need to communicate clearly, concisely, and completely.

In research, failure to communicate is failure *complete*.

NOTE CARDS: The URC *forbids* the use of note cards in your presentation.

If you have to carry a little card around to know what you're talking about, that does not give your audience the impression that you're very knowledgeable about your project. Even if you actually do know your stuff and just want the card as a safety net, the *impression* you make is the same. Demonstrating you are very knowledgeable about your project is the primary purpose of the oral presentation. Cards severely undercut a presenter's credibility.

When I explain this to students, many then quickly (and secretly) fill their PowerPoint slides with the notes from their cards. They then simply read their slides to the audience as they click through their presentation. People seem to think this is sneaky and subtle enough that the audience won't see through the ruse. Your audience, however, is a group of six professors who have been watching student presentations for many years and are not deceived by the trick.

Your credibility hangs on the *perception* of your competence.¹

ASSESSMENT: The basis for judgement of your written proposal and oral presentation are summarized in the guidelines document from which you got the template for your proposal, cover page, etc. Please read that now.

POWERPOINT FILE DELIVERY: Please deliver your PowerPoint presentations to me no later than **9:00 am on the day of your presentation**, so I can queue them up on the computer. There will not be time to tinker with individual flash drives, etc. during the meeting.

¹ You can improve the chances of making an impression of competence by:

- a) very mindfully designing your presentation so it has a crystal-clear organization with logical flow of ideas, graphics that illustrate key concepts, and explicit explanation of how each conclusion is supported by specific evidence/data in your study, and
- b) thoroughly practicing giving your presentations many times until you are so familiar with your presentation that you are comfortable giving it in a high-stress environment to an audience of expert strangers. This is a serious, grown-up thing, not some trite, blow-off assignment for a class. It's time to be a professional.

The impression you make will be a factor in whether or not your grant proposal is funded. Impressions count.

Minimum contents of a good research proposal

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- Precisely what is the question you propose to address? You need to clearly and directly communicate that your journey has a specific destination.
- Why is your question important / relevant? “Just basic research” generally doesn’t cut it in modern science both because funding is limited and because research is viewed as developing part of a greater fabric of scientific understanding. How does your work relate to the big picture?
- You are the expert best fit for solving this problem. This is done by explaining the background setting of the problem in a way that both smoothly synthesizes previous work and develops those ideas into a direction. You may also be required to document the analytical equipment available to you (i.e., do you have the tools for the project?) Although this is essential for research proposals to other agencies, you will not have time to do this in your Kutztown University Undergraduate Research Committee proposal (I only include it for your future reference).
- How will you go about solving this problem? You need to demonstrate that you have a well-planned method for resolving your question. Proposals that pose interesting questions, but not viable solutions are just idle musings.
- What are some of the expected results? Clearly, you don’t know the results of your research before you perform the experiments, but you should have an idea of potential results of your experiments. Explain how you will interpret specific results (e.g., I’m going to analyze the drinking water for lead contamination. If the concentration is over 15 ppb, then the water is contaminated, but if the concentration is less than 15 ppb, then it’s suitable for drinking.) Establishing the ground rules for interpretation of your results helps prevent bias in data collection and interpretation.
- If your proposal requests funds to present completed research, then you know your results, in which case your proposal must draw very explicit links between each conclusion and the data that supports that conclusion. Science demands evidence. You must show how each claim you make is underlain by a foundation of objective evidence for that claim.
- How will you disseminate the products of your research? Funding agencies want to know that you’ll publish and present your results to the rest of the world. Projects with great questions and excellent methodologies are little more than intellectual hobbies if the researcher doesn’t publish the results.
- How much is this going to cost? Funders always want to know how the money will be spent. Include a table itemizing the costs of the project. Finally, be concise. Reviewers are busy people and have a thick stack of proposals, so they appreciate direct language and minimal peripheral sidetracks.