CRAFTING A URG RESEARCH PROPOSAL

Grant writing is its own genre. It is not like the essays you have been writing in class; it is driven by arguments and takes a much more persuasive tone since you are trying to convince someone to give you money for something. Broadly, research proposals follow a set format, and the particular requirements (format, length, sections, audience, etc.) are set forth by the organizations providing funding. You should always look up the particular requirements and audience for the specific grant to which you are applying.

This guide is designed to help you with the requirements set forth for Undergraduate Research Grants (URGs) administered by the Northwestern University Office of Undergraduate Research. **The faculty review committee that awards URGs now require the following proposal sections: Introduction, Literature Review/Justification (ending with a research question/hypothesis), Methodology, and Qualifications, and these four need to appear as subject headings in your proposal. Your research question/hypothesis should be in bold.**

First and foremost, **we work on the assumption that you have never written a grant proposal for a project that you have designed, so this process will be new.** For the most part, no one who applies for a URG has proposal writing experience, so do not feel that you are at a disadvantage. However, it is your responsibility to learn what is needed. While your faculty sponsor will be key to your proposal development, the Office of Undergraduate Research advisors can help guide you through the drafting and revision process for a URG proposal. Why not take advantage of the knowledge of the people who run the program! Make an appointment as early as you can [through our advising request page here](#). You do not need to have a draft of your proposal before you talk with an advisor.

Office of Undergraduate Research grant proposals must be written to an educated, but not specialized, audience. You are not addressing it to the professor who taught you a seminar on this topic or to your lab, so you can't use the jargon in your field unless it is clearly defined at its first usage. The URG Review Committee is made up of faculty from across the university, and so your proposal must make sense to people who are not familiar with your field. Think back to when you were new to your area of research – what were the words and concepts that confused you? Make sure you explain them fully, as they will likely confuse the review committee too.

There are three main arguments that your proposal will need to successfully make: 1) Why is this project worth doing? 2) What are you going to do? and 3) Can you do this project? **When the reviewers read your proposal, these are the actual questions that they evaluate for each application:**

- Is there a clear, achievable research question/hypothesis?
- Has the student justified the need/value of the project through a review of relevant and appropriated cited sources?
- Has the student articulated a viable methodology that will allow them to potentially answer their research question/hypothesis?
- Does the student demonstrate adequate skills and contacts in order to successfully complete this project (or do you believe they can get them before the project begins)?
- Do you feel there will be adequate mentoring and support for the student during this project?

The center of gravity of the proposal is the research question (and by research question, they literally mean a sentence with a question mark at the end!). The location of this question is crucial as well – it should come at the end of your literature review/justification argument. Your justification argument shows that there is a gap in what is known that needs to be filled, and your research question is the clear, achievable articulation of your project's goals. The research question also allows the reviewer to assess your methodology section. They want to see the steps involved that will enable you to potentially answer

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your question. The two other areas are equally important. Reviewers need to know that you have the skills/training to do what you intend to do, and they need to know that you have solid faculty support. A URG mentor does not merely endorse your application; we expect them to play a vital support role throughout your project. It is critical that you engage in conversations with faculty to ensure they are aware of this commitment.

All proposals should also articulate a clear end product for the project. Research isn't just for the sake of research, but it must have a particular audience for whom the work would be disseminated and a means to do so. It can range significantly from a lab report or paper to a performance piece, and the reviewers do not show preferences among outcomes as long as they are suitable within the field.

URGs fund independent projects, so your project must have a significant component where you will be expected to perform independent problem-solving. If you are a student in a lab, it may mean that you are working on a sub-project within a larger research trajectory, which is okay as long as you have demonstrated ownership of your particular contribution to the project and contextualized the relationship between the sub-project and the larger project.

It is also possible to apply for URGs as a group project. If you choose to do so, you must: have a group no larger than 3, each be fully committed to the grant terms and conditions (if one person declines the grant, the entire group must decline the project), and clearly demonstrate the independent contribution and necessity of each group member. You can have one additional page in the proposal for each additional group member (i.e. a two-person group may have a three-page proposal); each group member submits a separate application through the system. However, the project title and grant proposal will be the same.

SECTION 1: INTRODUCTION

Your introduction is like a movie trailer for your entire project. **At the end of this single paragraph** (1/4 – 1/3 page of your two-page proposal)**, reviewers need to know the problem at the core of your project, why we should care about it, and what you plan to do.** Yes, that is a tall order, but remember – it is a movie trailer, not the movie itself. You will have the rest of the proposal to fill in the critical details, but by the end the introduction, reviewers must learn what specifically you will be doing in your project. You can't leave that information for the methodology because without that crucial frame, they won't know how to appropriately contextualize the background/literature review sections. At the same time, this is not the location for your research question/hypothesis, as they haven't seen your justification argument yet. Here, we need to set the frame of the project, which you will then fully unpack in the following sections. You should make a research statement which outlines your project and its overall goals, but leave the specific, answerable research question for later. Even though this section will begin your proposal, we strongly recommend that you write it last. You can't write an overview of something that hasn't been written yet, and if you choose to write it first, section 1 and section 2 will likely get repetitive.

SECTION 2: WHY IS THIS PROJECT WORTH DOING? (Background/Lit Review)

The primary goal for research is to increase the audience's knowledge about things unknown, and this first argument of your proposal justifies your project. The reviewers need to learn two things in this section (which does not need to be a single paragraph and should be approximately 2/3 – 3/4 page). One, this project hasn't been done before (because if it has, then just go read that article). Two, this project *should* be done. Just because something hasn't been done before doesn't mean that it should. You will have to argue that there is a need/value that will be added by your project.

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You build this argument through referencing the work other people have already done, and you also need to give the reviewer enough background information to understand what is urgent and important about the questions you want to ask. The reviewers expect that **you are up-to-speed on what the current state of study is on this topic, and that your project will add value to on-going conversations/ discoveries.** The key for this section is to show what is already known, what hole your project will fill, and why it needs to be filled. It is largely done by directly citing sources and making clear arguments around the value of your project to the field. This process holds true for lab projects as well as creative or social science proposals.

You want to place your project within the larger whole of what is currently being explored in a way that allows you to demonstrate how your project will move those conversations forward. Think about groups of literature rather than just individual authors or papers, and it will help you focus on the core ideas rather than summarizing individual works. Focus on the most relevant parts of the literature for your project. Some students have a tendency to summarize how an author reached a conclusion (e.g., Smith (2019) surveyed 1000 people across the United States and found that 78% liked to pet soft animals). Unless your project advances a new way of measuring/testing something, you don't need to tell the reader how the authors reached their conclusions.

To avoid a 'name dropping' approach, where you just summarize all the relevant work in a list, consider the following: What questions have other researchers asked, and what is your understanding of their findings? What do you think is still missing, and how has previous research not explored the questions/issues/topics that your study addresses? If no studies of your specific topic exist, look to parallel or broader ones. For example, if you are looking into a particular social movement in Mexico that has never been explored, you might look to studies of other social movements in Latin America or to more theoretical literature on social movements. "No one has ever done this before" will make the committee cringe, twitch, and otherwise get unhappy.

What makes a good research question?
The end of this argument will be your research question/hypothesis. The criteria for it are in the reviewer's evaluation question: Is there a clear, achievable research question/hypothesis? A clear question means that the question is actually answerable. What is the meaning of life is a great question, but it isn't actually answerable by you alone doing a short research project. An achievable question means that you can do it within the time allotted by the grant. Discovering the cure for cancer would be make a wonderful contribution to medicine! However, it's not a credible or achievable project for an undergraduate over the summer. A good research question is one that is specific, and balances significance with feasibility.

Your faculty advisor is crucial to this process, helping to focus and refine your research question/hypothesis. Once you have a working research question, it is helpful to parse through each word in it to make sure that words are not too vague or broad and that the words you use align to the methods you propose. For example, "successful" or "impact" might be too broad for a research question; you will need to you define what success or impact means in the context of your study. In the end, we want the reviewer to feel that you have a relevant and appropriate question that you have justified will add value to your field of study.

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SECTION 3: WHAT ARE YOU GOING TO DO? (Methodology)

The next argument comes through the methodology section (which will be approximately 2/3 –3/4 page), and it convinces us that you have a clear plan of action to answer your research question in the time you have available. This argument is the beating heart of your proposal, as it represents what you are asking for money to do. The reviewers need to leave this section believing your project can work. Detail here is key.

This argument is the most important one in your proposal, so we recommend that you start your writing process here as you are concurrently developing your research question. It is impossible to accurately frame your project in the background/lit review when you still aren't fully clear what you will actually be doing. Work with your faculty sponsor (and other faculty) on figuring out what is the right sized question to be asking (given the limitations on time and preparation), and work with your faculty sponsor (and other faculty) on what would be the best and most viable plan for you to undertake. We realize that your plan will develop and change over the life of the project, but in order to make funding decisions, the committee needs to believe that what you propose can work.

How specific does my methodology need to be?

Will you run a lab experiment to generate data? Tell us the steps involved. Will you be going to an archive to read primary documents? Tell us where, when, and what you are looking for in those archives, and what you will be making notes on while you read the documents. Will you be conducting interviews? Tell us whom you will speak with, why those people, how many people, and what you plan to ask them. Remember that we don't know your project like you do, so you must walk us through how the research will unfold. How will you locate people for interviews? Who will give you access to the archive? What lab techniques will you use? If you will travel, have you established contacts in your place of research? Scheduled appointments for interviews? **Your aim is to give the reader a clear picture of what exactly you will be doing, at every stage – while remembering that the reader might not be familiar with methods in your discipline.** The methodology section in a grant proposal is much more detailed than the methods section in an academic paper because you have to explain things that other experts in your field would already know.

One important key is to avoid the use of passive voice or "we" language. This grant funds individuals (you!), so you need to clearly state what YOU will do. If there are others involved in your project, that is fine; clearly state what others will do, so they can see where your responsibilities lie. A sentence structure that works well to introduce new steps of the methodology is "To do X, I will Y", and then you explain what it will mean if you achieve Y, and how this work will feed into the next step of the methodology.

This section should tell us the exact scope and length of what you will be doing during this specific grant period. For the scope, describe the number of interviews, experiments, or surveys to be conducted or the amount of materials to be examined. In terms of the project's length, walk us through the research period you are proposing. You don't need to break it down by specific weeks, but instead focus on the natural phases or discrete milestones within your project. If what you are proposing to do is part of a larger project (ongoing work in a lab, a senior thesis, etc.), remember that this section needs to focus on what you will be doing during this grant period. Yes, you will want to connect it to the larger project, but you are asking for a grant for this part now.

Finally, this section must tell how you will analyze or process the research data/evidence. Do not stop your methodology at data collection; we need to know what you plan to do with this data. Will you code, graph, or otherwise analyze the data to find patterns? What criteria will you use? If you are

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working with quantitative data, what kind of statistics would you plan to use and why? If you are working with text, what kinds of things might you be reading for, or if you plan to incorporate it into a creative work, how do you hope to do so? Do not just say you will "analyze" the data and leave it at that. We need to know *how* you will analyze/interpret it and *why* you are choosing to do so in this way.

IMPORTANT: Your research questions and methodology must 'match.' That is, make certain that the way you plan to run your study will actually allow you to answer your stated research questions. If what you plan to do won't help you answer your questions, then either your question or your methodology (or a little of both) need to be revised. **At the end of this section, the reviewers should believe that if you take those steps then you potentially will be able to answer your research questions (or prove/disprove your research hypothesis).**

SECTION 4: CAN/SHOULD YOU DO THIS PROJECT? (Qualifications)

The final argument comes through the qualifications section (which should be 1/4 - 1/3 page). At this point in the proposal, we already believe that your project is worthy within the field (justification) and that you have a good plan for what you need to do (methodology). There is now one final step – **we need to know that YOU (not some abstract "researcher") are qualified to complete the project.** Since you likely have not created a project that you can't actually do, this section should be much easier and more straight-forward.

How do I prove I can do it?
To write this last section, go through your methodology to evaluate all the steps you say you are going to do, then demonstrate that you have or will soon gain the ability/skills to do each of them. **Your proposal should not just *tell* the reviewer that you are qualified to do the work; you need to *show* them.**

Describe specific examples of coursework along with previous training or experience. Do you have experience conducting interviews or manipulating data sets? Tell us when and where. Do you speak the necessary foreign languages? Have you already learned the necessary lab techniques? You will definitely need to refer here to classes you've taken. While you should be specific about which courses prepared you for this project, you also need to frame them to show *how* they prepared you. What skill or experience did you get from what class? Think about it in this way: anyone in the universe would need to have a certain set of skills in order to do this project; show us how you acquired each of those skills.

You want to be completely honest here – don't claim skills that you don't have. Remember that this grant is considered a learning experience, and no one on the grant committee expects you to have every skill imaginable. However, if there are gaps or shortfalls in your knowledge/experience, address them head-on. You don't want to appear like you are unaware of your current limitations by not mentioning them – that makes the committee nervous. If there is an issue, think about how to solve it, and state it clearly. Your faculty advisor is a crucial resource in this regard; s/he can either help fill that gap or can direct you to where you can. Therefore, it is important that you choose a faculty advisor who can help you with your own knowledge or experience gaps.

What about a conclusion?
There is no conclusion – the proposal is only two pages, so they can remember what you wrote! However, it is appropriate to add a sentence or two at the end of your preparation section describing what you hope to achieve with this project. Are you planning on doing a senior thesis? Do you hope it will help you prepare for (or get into) graduate school? Do you hope to see this research continue? In what way? **Give**

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us a picture of how you see this project fitting into your larger academic or professional goals, but we don't need a personal essay here. It shouldn't take up more space than a couple of lines.

APPENDICES

While the proposal can only be 2 pages (single-spaced, 1" margins, either Times New Roman 12 or Arial 11), appendices can help supplement your overall package. All grant proposals should have a Work Cited list (since you have a literature review!). You can use whatever citation formatting style is normal in your field, but you need to use it correctly, as reviewers care about these important specifics. **It is recommended by the committee that you name on your Works Cited list what citation style you are using.** We strongly recommend you use a citation management software like Zotero (free, open-source with lots of usage support available through NU Libraries) to help you cite this properly; we find that when students copy/paste the "cite this article" citation, they often mix citation styles (aka one citation is pasted in MLA and another is in APA) rather than having a consistent style in their Works Cited.

You can also include figures, graphics, or images in your appendix to help flesh out points that you have made within the proposal itself. However, if you do so they should: 1) have a figure title and figure legend to tell the audience what they are looking at, 2) be referenced in the text of the proposal itself (e.g. "see Appendix 2 for a schematic of my process"), 3) be complementary but non-essential to understanding your proposal – the essential components MUST be in the 2-page proposal itself, and 4) be relevant to your specific proposal (e.g. if you get a piece of preliminary data from your lab and there are components of the figure that are NOT relevant to your project, that will just confuse the reviewer).

Other key appendices are as follows. If you have a reading list as part of your methods, the reviewers will expect to see the full list in the appendix. If you will survey/interview people, they will expect to full drafts of your questions/instruments. You also have to demonstrate a viable path to reach these people. If you claim you will interview specific people, then they will expect to see an email (or other correspondence) showing that they have agreed to speak with you. If you plan to work with specific organizations, they will expect to see proof that they have agreed. The reviewers don't like speculative projects; they need to know that you have a viable path to do what you want to do. For Summer URG students doing human subject research, you will also need to show the completion certificate for the CITI Basic Course (more info on IRB can be found on our website), though this will get uploaded to the application portal in a separate form field rather than as an appendix. Finally, if your project will take you abroad (but not to your home country, if you are an international student), then you are eligible for additional travel support. In your appendix, show what the round-trip airfare will be for your proposed project dates, and in a separate form field within the application portal, you can request half the cost of the round-trip fare.

CREATIVE ARTS/JOURNALISM PROJECTS

URGs may be used for creative arts and journalism projects. All artists and journalists need to be able to justify their work, to make an argument for why it is needed and/or will add to important conversations. In this way, creative projects do not work fundamentally differently than traditional research. Creative projects should center on an answerable question, i.e. not: what is the meaning of life? If the project seeks to generate a product (media, dance, music, etc.), you must show the question and method associated with the research and generation of that product. The need for the question should be justified through the literature review. While you will likely source different types of material compared to traditional research (e.g. you might cite existing plays around a related topic/concept if you propose to write a new play), you still need to show that there is a hole in the appropriate current discourse and that this hole deserves to be filled. It is proper to also justify the form of art you are proposing (e.g. why are you making a podcast compared to another media format?).

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The methods section should highlight specifically how this question will be answered. If you will be doing creative writing, for example, you should outline your writing process to give a sense of how the project will work. Still, the creative work itself may not answer the question, especially if the project focuses on a particular type of audience reaction. In those cases, how you will further use the creative work to answer your questions should be addressed. You should demonstrate that you have enough background and/or training in the art form to make the project realistic. You do not necessarily need to be a major, but you need some experience/expertise if you hope to succeed in what you propose. Like traditional research projects, you should be able to demonstrate the feasibility of the project in the proposal. If the project requires support from outside partners (performance space, resources, equipment, partner organization, etc.), you should include documentation in the appendix validating this support when applicable.

FINAL KEY WRITING ADVICE

Although you are limited to two pages, it is always a good idea to write far more when you are getting started. Get everything you can possibly think of that is relevant down on paper, and then begin the process of figuring out what best helps you to tell the story you need to tell. The writing process itself will be so important in helping you to think through and clarify your ideas. In other words, create good stuff first, and then turn it into a good proposal.

Writing a successful research proposal is a process. It is a process to both develop your thoughts and ideas, and it is a process to make it work within the specific format of a research proposal. Many drafts and re-writes are standard. Get feedback from your advisor. Get feedback from the grant advisors at the Office of Undergraduate Research. **The time you put into the process is well worth the effort. It will make a better project, and better projects are much more likely to get funded!**

Specific note for Summer URGs: Advisors in the Office of Undergraduate Research often book out of advising appointments in advance of the Summer URG deadline. Students are limited to working with only one advisor in the office (at a max of once a week) in order that we can help as many students as possible. Consequently, we recommend meeting with an advisor earlier in the process rather than waiting until the 1-2 weeks before the deadline. Based on feedback that we have from previous applicants, developing your project and writing a strong grant proposal will likely take you over 15 hours of work.

Want personalized help?

Schedule an appointment with an advisor at the Office of Undergraduate Research today!

Advisors are available Monday to Friday, for students in any major. You don't have to have

a draft or a fully formed plan for your project ready: we are happy to work with you at any

stage!

Visit our website to make an appointment!

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