

CRAFTING A RESEARCH PROPOSAL

Research proposals follow a set format. Proposal writing is its own genre, and just like you wouldn't write a short story and wait to introduce the main character until the end, there is an expected order that you should follow in a research proposal: introduction, background and literature review, methodology, and preparation. This guide is designed to help you through these sections, even though you won't ultimately need to use named section headings in your final version.

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, and we strongly recommend that you take advantage of our advising resources. 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. Why not take advantage of the knowledge of the people who run the program? Make an appointment as early as you can: <http://undergradresearch.northwestern.edu/advising-request>. You do not need to have a draft of your proposal before you talk with an advisor.

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. 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 this 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/should you do this project? Overall, when the reviewers read your proposal, they will be looking for it to **answer these questions:**

- What do you want to study, and why?
- How is it significant within your field, and what problems will it help solve?
- How does it build upon (and hopefully go beyond) work already in your field?
- What exactly do you plan to do, and can you get it done in the time you've got?
- Do you have the knowledge and skills to actually do the project?
- What do you hope to have learned by the end, and do you expect it to turn into a senior thesis, conference paper, performance piece, etc.?
- How does this project fit into your larger goals here at Northwestern and beyond?

Yes, it is not an insignificant list, but if you use the proposal format effectively (and take advantage of faculty and OUR advising), it will work. We also recommend that you begin with your second argument around the methodology/plan for the project, as that is the source for all other parts of the proposal. In the end, your proposal should express both your knowledge of the topic and your enthusiasm for doing it. We want to be left feeling – Wow! That project is exciting and I can't wait to see how it turns out!

INTRODUCTION

Even though this section will begin your proposal, we strongly recommend that you write it last. Your introduction is like a movie trailer for your entire project. **At the end of this single paragraph, we need to know the problem at the core of your project, what you plan to do, why we should care about it, and how this project will help you achieve your academic and professional goals, such as a senior thesis or gaining needed research experience.** 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, we will need to know what specifically you will be doing in your project. You can't

leave that information for the methodology because without that crucial frame, we won't know how to appropriately read the background/literature review sections.

At its core, your introduction should present the best bits of the three main arguments that your proposal will present. In this way, we recommend that you not write your introduction until you have drafted the rest of the proposal. **It is hard to make a movie trailer for a film that isn't finished.** Work through and clarify the important parts first, and then discern the best way to present them in your introduction in simple, but compelling terms.

ARGUMENT #1: WHY IS THIS PROJECT WORTH DOING?

The first section of your proposal makes the argument that your project will address an interesting and currently unanswered research question. You build this argument by reference to the work other people have already done, but you also need to give the reader enough background information to understand what is urgent and important about the questions you want to ask. Below we discuss the "background" and "literature review" separately, but in your proposal they are combined to build up the case for the relevance of your project and your specific research question.

So how do you do this? By demonstrating 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 academic 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.

How much background do you need to give, to explain the context of your project?

Since the people reading your proposal will be from all over the University, you can't assume they will know your subject as well as you do. As a frame, think of your Aunt Sheila: she is a lawyer and super smart, but she doesn't know anything about your world of research. How would you explain what you are doing to her? You must give the basic information about your research topic to help them understand what you want to do. However, the proposal is not an essay going over every thing you have ever learned; instead, you must choose what is relevant to help explain what your goals are. The key is relevance – you only need to discuss the background that helps make your specific project make sense, and helps you build up the case that your research question is important. Keep it focused.

What other ideas and studies does your project build on?

While every project is unique, you need to demonstrate that your project will be of interest to people other than you (and your research subjects, if you have them). To do this, this part of the proposal connects your project to other work by other academics in your field. It gives us a better understanding of where your project sits in your field and how your project can help to move the field forward. However, we don't want just a list of scholarship that exists; we need you to use that scholarship to make a clear argument for why your project is necessary.

The purpose of citations to other people's work (a 'literature review') is not to give a long list of every article and book you've ever read on the topic. Instead, you discuss other people's work to demonstrate that the topic you want to study fits into an ongoing conversation in one or more academic disciplines. **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.**

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 purpose of this section is to convince the reader that your project (and by extension, your research question) is relevant and will make a contribution to an existing academic conversation. The scope of the question is also important, however. 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.

We don’t expect you to know and have read everything in the field, but you do need to know what is relevant to your project. So, talk to people in the field, and make sure to ask whether you are reading the appropriate materials. Your faculty advisor is crucial to this process, helping to direct you to review things that can help situate and refine your project. In the end, we want to leave this section feeling that this project needs to be done.

ARGUMENT #2: WHAT ARE YOU GOING TO DO?

The second argument comes through the methodology section, and it convinces us that you have a clear plan of action to answer your research question, that can be successfully completed 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. What specifically do you hope to learn by doing this particular project? What will you specifically do to learn it? **The proposal needs to refer back to the actual research questions you proposed in the section above, and an explanation of the means of collecting and analyzing data that will help you to answer those questions.** We 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 here. 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?

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.

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?

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. If what you are proposing to do is part of a larger project (ongoing work in a lab, a senior thesis, etc.), remember that you need 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 money for this part now. Also, make sure that your project is actually achievable in the time frame proposed. Mapping the human genome was a worthwhile research project, but I believe it took longer than a summer (or an academic year) to complete.

Finally, this section tells how you will analyze or process the research data. **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? Do not just say you will "analyze" the data, and leave it at that. We need to know how you will analyze it and why you are choosing to analyze it 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 one of them needs to be revised.

ARGUMENT #3: CAN/SHOULD YOU DO THIS PROJECT?

The final argument comes through the preparation section. At this point in the proposal, we already believe that your project is worthy within the field and that you have a good plan for what you need to do. There is now one final step – **we need to know that YOU (not some abstract "researcher") are qualified to complete the project as you have described it.** Since you likely have not created a project that you actually can't 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 and list all the things you say you are going to do, then demonstrate that you have or will soon gain the ability to do each of them. **You proposal should not just tell us that you are qualified to do the work, however; you need to show us.**

To do this, describe specific examples of previous training, experience, and coursework. 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? It is likely that you will refer here to classes you've taken. While you should be specific about which courses prepared you for this project, however, 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 skills 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?

We do not need a standard essay conclusion – the proposal is only two pages, so we can remember what you wrote! However, it is appropriate to add a sentence or two at the end of your proposal 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 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.**

FINAL KEY WRITING ADVICE

While this format may seem strict and creatively limiting, it doesn't mean that you start writing this way. The key, at first, is to generate good ideas. **Although you are limited to two single spaced pages in your final version, 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!**

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:

<http://undergradresearch.northwestern.edu/advising-request>