DIRECTORATE FOR BIOLOGICAL SCIENCES (BIO)

PROPOSAL WRITING TIPS

1. START WITH A COMPELLING IDEA

Your proposal should attempt to change how we think about a topic and excite the reader. Show the reviewers that you've done your homework by including appropriate citations in your proposal. Be sure to consider any references included in the program announcement or solicitation.

2. START EARLY AND SCHEDULE ADEQUATE TIME

Give yourself enough time to check and recheck your proposal. Build in time for others to review it before submission and remember that working with your Sponsored Research Office will take time. Ask for letters of collaboration, biosketches, etc. from collaborators as soon as possible. Send them instructions or templates to save yourself formatting work at the end of the process.

3. DEVELOP A CHECKLIST

Thoroughly read NSF's current Proposal and Award Policies and Procedures Guide (PAPPG) and the program announcement and solicitation. Follow the instructions closely, and ensure all required components are included. Is there a deadline, a target data, or is there no deadline? Read the PAPPG or email your program director to understand the different due date structures.

4. CONSIDER THE REVIEWERS

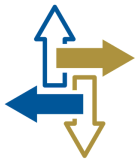
Be clear and concise. The reviewers should be able to easily understand what your plan is, why each piece is important, and who on your team will do what work, when. Include figures that will strengthen your case.

5. PROOFREAD YOUR TEXT AND FIGURES

Typos and grammatical errors can be distracting for reviewers. Ensure maps and other figures add value and are easy to read.

6. FIND A PROPOSAL-WRITING MENTOR OR ASK FOR A PEER-REVIEW

Ask for feedback from a former advisor or colleague who has previously been successful at NSF. Their outside perspective may strengthen your proposal, and they may spot mistakes that you miss.



7. THERE IS NO STANDARD BROADER IMPACT

Your Broader Impact could a) relate to teaching and training; b) broaden the participation of underrepresented groups; c) build or enhance partnerships across institutions, or internationally; d) broadly disseminate science to the public; e) enhance infrastructure at your institution or in a developing country; f) impact local policies; or g) do something we don't list here. It's better to do one thing well than to try and cover several superficially.

8. CRAFT A REASONABLE BUDGET

Think carefully about what you need to do the work you propose, and ask for what you need. Ensure that the work that undergrads, grad students, and postdocs are doing is appropriate for their level. Justify each expense, and don't forget to ask for funds to support your Broader Impact activities.

9. GET TO KNOW YOUR NSF PROGRAM DIRECTOR

Email your program director and ask any questions you have the process or set up a phone call. If you're new to the NSF system, attach your CV as a way of introduction.

10. DON'T GET DISCOURAGED!

The only PIs who don't get declined are the ones who don't submit. NSF Program Directors want you to succeed and are here to support you along the way.

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ONE-PAGER WRITING TIPS

A one-page project summary or concept outline can help you organize your thoughts and help NSF Program Directors determine if the proposed research is a good fit to the scope of their program. The Program Directors may discuss with those managing other programs so they can give you useful feedback.

Please note: Program Directors will help you figure out the best "home" for your ideas at NSF, but they will not provide the type of detailed feedback on your proposal that you would expect from a mentor or colleague.

One-pagers should mirror the format of the Project Summary portion of an NSF proposal (i.e., brief overview, statement of intellectual merit, and a statement of broader impacts of the proposed work).

Below are some tips to consider when writing a one-pager:

1. WRITE TO A SPECIFIC PROGRAM

One-pagers should be specific to the program. Read the solicitation thoroughly and be sure that your project aligns with the scope of the program. If you aren't sure if it is a fit, point this out when you write to the Program Director and note any other programs you might be considering.

2. USE YOUR SPACE STRATEGICALLY

Good one-pagers include your overarching question, the big picture of your research area and knowledge gaps you plan to address, your hypothesis, brief descriptions of specific aims, and any preliminary data. That's a lot to fit on one page! Keep background information to a minimum; briefly describe why the research is important and how it advances current knowledge. Use most of the page to explain your hypotheses and your approach(es) to addressing them.

3. ADDRESS SOLICITATION-SPECIFIC CRITERIA

In addition to the two merit review criteria (Intellectual Merit and Broader Impacts), many programs evaluate proposals using additional solicitation specific review criteria described in the program solicitation. To be competitive, this additional information must be addressed in your proposal.

4. DON'T FORGET BROADER IMPACTS

Don't forget the Broader Impacts in your one-pager. They are part of the review criteria, so address them without providing extensive details.

5. BE PATIENT WHEN AWAITING FEEDBACK

Responses to one-pager queries typically take a week as they may need to be discussed in program meetings and/or sent to Program Directors in other programs. If you don't hear back within two weeks, please send a gentle reminder; we all get busy and don't want things to fall through the cracks!

6. FOLLOW UP AFTER YOU GET FEEDBACK

After you hear back about your one-pager, you may want to consider scheduling a meeting with a Program Director. This meeting can provide an opportunity to ask specific clarifying questions about the solicitation, your proposal ideas and preparation, and about other NSF funding opportunities that may be appropriate for your project.

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ONE-PAGER EXAMPLE

First Name, Last Name, Organization Name, Email

Target Program, Potential Secondary Program(s)

Proposal Type

This may vary depending on the program but common proposal types include: Research, Rapid Response Research (RAPID), Early-concept Grants for Exploratory Research (EAGER), Research Advanced by Interdisciplinary Science and Engineering (RAISE), Grant Opportunities for Academic Liaison with Industry (GOALI), Conference, Center/Research Infrastructure (see relevant funding opportunity) or Fellowship (see relevant funding opportunity). Additionally, several career point specific proposals exist including Faculty Early Career Development Program (CAREER) and Mid-Career Advancement (MCA) proposals. Further information on these opportunities can be found in the PROPOSAL & AWARD POLICIES AND PROCEDURES GUIDE (PAPPG) and program solicitations.

Relevance to Program

1-2 sentences about how your research fits the program goals

Brief Submission Running Title

Key Terms

up to 6 key words or phrases

Concept Outline

This section should be one page in length, usually 2-3 paragraphs that include a brief overview, a statement of the intellectual merit of the proposed research activity, and a statement on the broader impacts of the proposed activity. Keep in mind the suggestions from the previous page and be sure to address your overarching biological question, the big picture of your research area and knowledge gaps you are addressing, the hypotheses you will use to address this question and briefly the specific aims and what you are planning to do, and any key preliminary data.