Writing Successful Grant Proposals

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Working Assumptions for this Workshop...

• You have a funding opportunity in mind that you would like to respond to (if not, ORAD can help you find one).
• You have a specific project in mind that a funding agency may be interested in supporting (if not, you need to develop one – we can help!)
• You have the time to invest in planning and writing (and revising and resubmitting) a grant proposal.
• You have the time and are willing to carry out the project if it’s funded.

Why Bother?

External funding can provide.....
• Time and compensation for faculty to pursue professional scholarship (release time, off-quarter pay, overload pay).
• Funds for equipment, supplies, and technical and administrative support of research and research training activities.
• Support for students to engage in activities that support their success.
• Institutional support for advisement, curricular reform, student outreach, community-based research, infrastructure, construction...
• And more!

To Write a Successful Proposal...

Planning and Preparation
• Be sure you have a clear understanding of your own proposal – before it’s written!
• Understand the funding agency - why are they giving away money?
• Read the funding solicitation and follow directions.

Writing the proposal
• Write with clarity and readability, aimed for the audience.
• Include the basic components of all successful grants…. Compelling specific aims; complete background section; concise methods; clear data analysis/evaluation; realistic budget narrative; convincing summary.
• PLAN AHEAD – time management is critical!
Understanding Your Proposal (before writing it)

• What are the goals (long term, and immediate)?
• Why is your project important? (Is it innovative? Does it fill important gaps of knowledge? Does it provide a critical service? What will the result be?)
• What has already been done? (survey the literature, know what’s already funded, contact others in the field…)
• What will you actually do? (How do the proposed activities meet your goals? Who and what is needed to do it? Are the project and goals really feasible?)

Understanding the Funding Agency

• What is their mission?
• How do they decide which projects get the money?
• Who do they typically fund?
• What types of proposals do they fund?

Examples of Missions

• “...the steward of medical and behavioral research for the Nation. Its mission is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability.”
  - National Institutes of Health

Examples of Missions

• “To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense”
  - National Science Foundation
Examples of Missions

• “Our overall mission is to reduce poverty and injustice and to promote democratic values, international cooperation and human achievement.”
  - Ford Foundation

Write to the Mission!

• Will your project advance the funding agency’s mission?
• Tell them how! (“The proposed project will advance the mission of the Ford Foundation by….”)
  – Shows them that your project is important – to them
  – Demonstrates your familiarity with the agency
  – Helps the agency account for how they spend money

How do they make funding decisions?

• Who reviews?
  – Peer review panel of experts in the field?
  – Agency Council/Program managers?
  – Board of Directors?
  – President of Foundation?
  – Congress?
• What scoring mechanism is used?
  – Specific rubric based on weighted criteria?
  – Subjective impression of the reviewers?

Who gets their dollars?

• Do they fund institutions of higher education?
• Do they specifically target undergraduate-serving institutions?
• Do they specifically target Hispanic- or Minority-serving Institutions?
• Are all of their grant/contract recipients at “Tier – 1” research universities?
Can you make a case for why they should fund you, and your university (or, does your mission fit theirs?)
What types of proposals does the funding agency fund?

• Single Investigator grants? Fellowships?
• Institutional grants?
• Collaborative grants?
• Cooperative Agreements?
• Contracts/Subcontracts?

Many agencies fund more than one type of award. Make sure that the type of award matches your proposed activity.

The Program Announcement

• The Program Announcement (PA) gives critical information about the funding opportunity.

• Also called - Program Solicitation, Request for Applications (RFA) and Request for Proposals (RFP).

• It is essential that the directions are followed exactly, or the proposal may be returned unread and never reviewed, or viewed unfavorably.

Key Components of the Program Announcement

• General overview: Goals of the program
• Topics they’re interested in funding (or not)
• Eligibility information – who can apply?
• Requirements – specific components they want to see in the project (narrative requirements, attachments, activities…)
• Selection Criteria
• Submission requirements – formatting, page limits, mode of submission (electronic, paper, both)
• Budget limits – what they will and won’t fund; indirect costs; cost-sharing
• Due date and time! For letter of intent, preproposal, proposal
• Agency Contacts – does your idea fit?

Sample Program Announcement

• NSF Science, Technology, and Society Program

Criteria: Intellectual Merit and Broader Impacts, plus program-specific criteria.
The Importance of the Program Announcement

• Follow instructions (page limits, margins, font style and size, narrative format, attachments, budget details, due dates, etc.…)

• Read the Program Announcement, and believe that they mean it!

The Importance of the Program Announcement

• Also, it gives you the inside scoop:
  – mission of the agency
  – goals of this specific program
  – what terms do they use?

• Make sure your project really fits the program goals

• Use their terms when writing the proposal (example: “computerized speech”)

Now you’ve done your homework…

Start writing the proposal!
As you write, put yourself in the reviewer’s shoes...

Narrative Writing Tips

**Goal**: Improve the clarity and readability of your narrative *(make the reviewer’s life easier!)*

- Write in a simple, direct style.
- Use the active voice (“The data will undergo analysis by students” vs. “Students will analyze the data”)
- Use shorter sentences, without multiple clauses.
- Use very specific language (avoid subject pronouns – “This provides the rationale for my proposal”)
- Check spelling, typographical errors, and grammar – are you a careful person who can be trusted to do a good job with their money?

Narrative Writing Tips

- Write at a level appropriate for the reviewer (Expert in your field? Someone with general knowledge of the discipline? Board of Directors?)
- Don’t over-estimate the expertise of the reviewer, and include too little background and detail (but don’t underestimate, and include too much unnecessary information!)
- Avoid field-specific (or researcher-specific) jargon
- Be redundant and say some things twice (big ideas, important details…)
- Avoid UABDT
  
  ……Using Acronyms Before Defining Them!

Revising Prose

- Read your writing out loud – is it hard to get through a sentence?
- Check the readability of your writing at a website such as this one:
  
  [www.online-utility.org/english/readability_test_and_improve.jsp](http://www.online-utility.org/english/readability_test_and_improve.jsp)
The Typical Components of a Proposal Narrative

1) Project Summary/Abstract
2) Specific Aims
3) Background/Significance
4) Project Description
5) References

The specific required components will vary by funding agency – read the Program Announcement!

Project Summary/Abstract

Provides a concise, but specific, summary of the proposed project (what you want to do, how you’ll do it, why it’s important).

Follow the Program Announcement instructions
- Required components (i.e., for NIH: how it advances their mission)
- Length (word count, # of lines)
- Target audience (sometimes different than the proposal itself)

Specific Aims Section

Provides a concise, but specific, summary of the proposed project (what you want to do, how you’ll do it, why it’s innovative, transformative, and/or otherwise important).

This (and/or the Abstract) is your best opportunity to sell your idea to the reviewers (especially those who don’t have time to read the full proposal in detail).

Specific Aims Section

Follow the Program Announcement instructions
- Required components
- Length (paragraph, pages)
Background/Significance

This is where you have the opportunity to present the topic more thoroughly in the context of what has been done previously.

Length: A paragraph to several pages, depending on page and format limits

Project Description

In this section, you should detail:

- What you will do specifically (experiments, observations, surveys, details of data collection and analysis, etc.)
- What specific outcomes will be measured
- How the outcome measures are relevant to the goals/specific aims of the project

Background/Significance

In this section, you should demonstrate:

- Your knowledge of the field
- Your expertise and accomplishments in the area (past work, preliminary results)
- The rationale for your project, based on what has preceded it
- The importance of your project goals (gaps in knowledge, unmet need...)

Project Description

In this section, you should also describe:

- Anticipated results, and their interpretation
- Possible alternative results, and their interpretation
- Contingency plans (don’t have year two activities depend on a particular outcome of year one!)
- Method of data analysis (and project evaluation, if applicable)
- Any other information the Program Announcement requires (dissemination, etc.)
- A convincing summary statement
You should propose a budget that...

- Includes only **allowable** expenses (see the Program Announcement)
- Is in line with the budget amounts typically funded by the agency for that type of project
- Is **realistic** – can you really do the project if you get this level of funding?
- Is **well justified** (usually in a Budget Narrative section)

**Budget Development**

Typical budget items include:

- Personnel: PI, Co-investigators, Project Directors, Technicians, Post-docs, student assistants...
- Travel (in-state, out-of-state)
- Equipment (above $5000)
- Supplies

You may also need consultants, student or participant stipends, publication costs, subcontracts….

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**What is Release Time?**

Release Time (RT) is time “bought out” from some portion of a faculty member’s State-funded duties to pursue activities funded by an external grant or contract.

The amount of RT budgeted in a grant is agreed to during the grant proposal submission process (PI, Chair, Dean).

Up to 15 units per quarter may be claimed, with the Chair’s and Dean’s approval.

The portion of faculty salary paid by RT is exempt from furlough.

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**What is Off Quarter Pay?**

Faculty may be reimbursed for time spent on grants outside of their assigned work schedule.

Normally, up to 15 units may be budgeted for off-quarter work (“summer salary”), depending on funding agency limits.

The amount of QQ salary paid from a grant is agreed to during the grant proposal submission process (PI, Chair, Dean).

Some funding agencies limit the amount of QQ pay.
What is Overload Pay?

Overload is pay for additional effort on grants beyond the usual workload (15 units) during your normal work assignment.

The amount of OL budgeted in a grant requires justification and is agreed to during the proposal submission process (PI, Chair, Dean).

The 125% rule: the cap on OL during each quarter is 3.75 units (25% of 15 units).

Some funding agencies do not allow overload!

What are Indirect Costs?

Externally sponsored projects have costs associated with them that are not accounted for in the “direct costs” of the budget.

Administrative costs: Costs to the University/UAS to administer the project

Facilities costs: Costs to the University for maintenance and use of the campus infrastructure

The federally negotiated indirect cost rate is 44.5% of allowable direct costs.

This IDC amount must be included in your budget, unless the funding agency specifically indicates a lower rate (submitting a proposal at a lower IDC rate is subject to University approval).

The Budget Narrative

Provides the justification and rationale for your budget request.

Should be specific:

- how much effort is required to do the work?
- what, specifically, will personnel be doing?
- wages and fringe benefits based on University/UAS scale?
- specific needs for supplies, computers, equipment, etc.?
- travel: specific conferences/destinations, and basis of costs (per diem rate? mileage rate?)

Budget Development

If you have questions about budget development, ORAD and ORSP can help!

ORAD: Appropriateness of budget items and amounts, in relation to the project and program announcement.

ORSP: Allowability of costs; developing budget numbers for personnel (salaries, release time).
How much time should you budget to develop a grant proposal?
A) Two weeks
B) One month
C) Two months
D) Four months!

Final Pop Quiz…

Why Four Months?
You need time to
• Read up on the funding agency to understand its goals and mission
• Review the literature and grants already funded
• Write and revise the proposal
• Have others review the draft
• Revise the proposal again
• Develop a budget
• Obtain the University and UAS approvals necessary to submit the proposal (several weeks)

How to Make Time?
You need deadlines and discipline!
• Devise a schedule of deadlines for different tasks associated with proposal development
• Block off time in your daily calendar dedicated to the proposal – no meetings or interruptions!
• Anticipate time conflicts near the due date of the proposal, and plan accordingly

Need Help?
ORAD is available to help you with all aspects of proposal development:
• identifying suitable grant opportunities
• conceptual development of proposals
• assistance with editing the narrative
• letters of support (President, Provost…)
• building partnerships
• compliance with requirements regarding conflict of interest, use of human and animal subjects, biohazards, radiation, export controls, intellectual property, and controlled substances