Overview of the Six-Week Course

**Description:** This training is designed to facilitate faculty in the production of a solid, review-ready grant proposal. Participants will benefit from interdisciplinary collegiality, learn grant approaches to different agencies, and have the opportunity to submit proposals for review and comment by grant-successful senior investigators. A team of proposal support personnel will be aligned to the submitters’ individual needs.

**Session Format:** In each two-hour session, participants can expect to interact with grant-successful faculty and staff to learn the skills and insights required to develop competitive grant proposals. In most sessions, the first part of the session will be devoted to lecture or discussion, and the remaining time in the session will consist of hands-on participatory writing and workshop activities.

- **Dates:** September 18 - October 23, 2015
- **Time:** Fridays from 10:00 am - 12:00 noon
- **Location:** Animal BioSciences Building (ABB) 145
  
  *Refreshments (including coffee) will be served.*

**Group Work:** Participants will be assigned to a small group or partnership and will share their writing progress each week by posting drafts to a shared Dropbox.
**Expected Outcomes:** At the end of the Boot Camp, grant submitters will have gained knowledge of developing narratives and budgets, funding agency and university requirements, and the grant review process. The most significant product of these sessions will be a review-ready grant proposal.

**Required Pre-Workshop Activities and Registrations:**

2. Join the Boot Camp Dropbox folder, enter your folder, and complete the Bioform with a brief description of yourself, your research interests/current proposal idea(s), and your goals for Grant Writing Boot Camp. Throughout Boot Camp you will access the folder for weekly course resources and to post drafts for review and edit with your workshop colleagues.
3. Prepare to introduce yourself with a short elevator speech on your research project, current proposal plans, and any interdisciplinary interests.
4. Register for your respective agency application portal (i.e. FastLane for NSF, eRA commons).
5. Watch or review the video presentation “Publish & Flourish: Become a Prolific Scholar,” a 45-minute training presented at MSU by Tara Gray, a specialist in time management and the academic writing process, in preparation for the next several sessions: [camtasia.msu.montana.edu/Relay/Files/tGray/tGrayProlificSchol.html](camtasia.msu.montana.edu/Relay/Files/tGray/tGrayProlificSchol.html)

**Assignments and Expectations:**

1. We request that you commit to writing and reading for at least 30 minutes per day in order to make satisfactory progress on your proposal.
2. Expect to complete the fundamental pieces of a federal grant proposal including the project summary, biosketch, project narrative (first 5 pages including overview, research strategy, broader impacts, management plan and timeline), and budget. Both NSF and NIH requirements will be addressed as well as other agency and foundation requirements if applicable to the group.
3. Participants should expect to have a review-ready draft proposal by the end of October 2015.
Session One: FINDING FUNDING

Welcome, introductions, and an overview of Boot Camp’s session format and the grant writing process. Participants will present a short elevator speech on their project and any interdisciplinary interests. Presenters will give an overview of the grant submission process, discuss how to fit grant writing into your workload, fitting your research to a funding source, and guide them through a hands-on experience in researching external funding searches.

- Welcome and Introductions - Sara Rushing (Director, ADVANCE Project TRACS and Assistant Professor, Political Science), Nika Stoop (ADANCE Project TRACS Grant Submission Training Coordinator)
- Overview of the Grant Writing Process - Nika Stoop
- Introduction to the Tara Gray Model for Grant Writing - Marilyn Lockhart (Director, Center for Faculty Excellence)
- Fitting your Research to a Funding Source - Cathy Whitlock (Professor, Earth Sciences and MSU Director, Institute on Ecosystems),

In-Class Work:

- Access SPIN and start a funding search

Out-of-Class Work:

1. Run a funding search in the SPIN system and locate three promising opportunities.
2. Save the Request for Proposals or Opportunity Description and post these documents to the group’s shared Dropbox; also bring a printout of your primary choice to the next class.
3. Review “Six Critical Questions to Launch a Successful Grant Proposal”

Materials:

OSP Finding Funding

Publish & Flourish, Tara Gray, Director, Teaching Academy, New Mexico State University

- PDF handout
- Video presentation

SPIN Training Guide (PDF)


You need to come to an understanding that your grant proposal starts with a great project, but that you can only seal the deal through effective persuasion and influence. - Morgan C Giddings, PhD.
Session Two: STARTING THE GRANT WRITING PROCESS

This session goes through the process of reading a funding announcement, introduces you to the MSU Office of Sponsored Programs, and talks about the importance of mentors to the grant writing process.

- Overview of a Funding Announcement - Micaela Young, Pre-Award Specialist, OSP
- Office of Sponsored Programs – Overview of services and registration process, working with Fiscal Managers - Carmen Fike, Fiscal Manager, OSP
- Consulting mentors/department heads about your project - Suzanne Christopher, Professor, Health & Human Development

Assignment(s) Due:

- Save the Request for Proposals or Opportunity Description and post these documents to the group’s shared Dropbox; also bring a printout of your primary choice to the next class.

In-Class Work:

- Based on your RFA (or equivalent) make a list of the resources, support, and assistance you need from your mentor or department.
- Discuss any barriers you anticipate in getting these needs met, and how you will deal with those barriers.

Out-of-Class Work:

- Write a one-page letter to your department head or prospective mentor that describes your project and the specific support you will require. Send it and be prepared to share your experience.
- Update your CV if needed to include any new grant, publication, teaching, service, or other significant activity and convert to a BioSketch (either NIH or NSF format).
- Register for the funding agency you have targeted (FastLane, eRA commons, etc) and register access with OSP before the next session.
- Review “Making the most of mentors: A guide for mentees”

Materials:


MSU Office of Sponsored Programs Principal Investigator Guide (PDF)

NSF Grant Proposal Guide (webpage), PDF

NSF Hints - Advice on Writing Proposals to the National Science Foundation

Example Biosketches:

- NSF Guidelines,
- NIH Guidelines, MS Word Template, Example, Biosketch FAQs (New after May 2015)

NIH – Hints for Planning, Writing and Submitting, NIH Grant Writing Tips, Writing Your Application
Session Three: DESIGNING YOUR PROJECT

This session introduces participants to the scope of documents required for a grant submission in addition to the project description, giving examples of projects summaries and specific aims. Experienced faculty members will talk about what goes into a successful proposal and the potential for pre-submission interaction with program officers, an often-overlooked yet critical part of a successful grant submission.

- Foundations: Starting with letters of intent - Anna Graham Lundeen, Director, Foundation Relations, MSU Alumni Foundation
- Discuss examples of project summaries and specific aims - Allen Harmsen, Professor, Immunology & Infectious Diseases, Anne Camper, Associate Dean, College of Engineering
- Discuss approaching NSF Program Officers/NIH Scientific Contacts/Foundation Contacts - Laura Stanley, NSF Program Officer, Engineering (Faculty at MSU), Jia Hu, Assistant Professor, Ecology

Assignment(s) Due:

- Be prepared to share your experience reaching out to your department head or mentor
- Bring BioSketch for feedback.

Out-of-Class Work:

- Complete a 1–2 page draft of your project summary and specific aims with notes related to your next steps and post to Dropbox; work on these steps if possible.
- Reach out to your Funding Agency contact to setup a time to discuss your proposal
- Develop questions for your Funding Agency contact
- Review “Why Academics Have a Hard Time Writing Good Grant Proposals”
- Review “What to Say- and Not to Say- to Program Officers”

Materials


- Specific Aims – Template (spaimstemplatev3.docx)
- Data Management Plan – NIH NIAID.
- Personal Statement on the NIH Biosketch
- Facilities and Resources
- FAQs for NIH

Talking with your Program Officer – Hints for NIH, NIAID, Chronicle of Higher Education Article: What to Say- and Not to Say- to Program Officers

NIH NIAID - R01 Sample Applications and Summary Statements

<table>
<thead>
<tr>
<th>PI and Grantee Institution</th>
<th>Application Resources</th>
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<tbody>
<tr>
<td>Colin Parrish, Ph.D., of Cornell University</td>
<td>Summary Statement</td>
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<td>“Structural controls of functional</td>
<td>Research Plan</td>
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<tr>
<td>Researcher</td>
<td>Institution</td>
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<td>Adam Ratner, M.D., M.P.H.</td>
<td>Columbia University</td>
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| Boris Striepen, Ph.D. | University of Georgia | "Biology of the apicomplexan plastid" | Summary Statement
Research Plan
Full Application |
| Carolina Wählby, Ph.D. | Broad Institute | "Image analysis for high-throughput C. elegans infection and metabolism assays" | Summary Statement
Research Plan
Full Application |
Session Four: YOUR PROPOSAL TEAM

In this session, participants will meet representatives from MSU groups that can help with advice and template for writing a successful grant, including tackling the illusive “Broader Impact” section.

- Introduction of groups from MSU that support grant writing
  - Sara Mannheimer, Data Management Librarian, MSU Library
  - Ann Bertagnolli, Program Coordinator, Montana INBRE
  - Mark Quinn, Professor, Microbiology & Immunology, Head of MSU’s IRB
  - Mark Young, Associate Vice President, Research and Economic Development
- Writing a Broader Impact plan for your grant - Outreach Specialist, Extended University

Assignment(s) Due:
- Complete a 1–2 page draft of your project summary and specific aims

In-class Work:
- Discuss project summary and specific aims

Out-of-Class Work:
- Revise project summary and specific aims and post to Dropbox
- Review materials on Merit Review Process
- Discuss your ideas with your funding agency contact
- Review “8 Concepts Every Grant Writer Must Master For A Successful Proposal!”

Materials

Handout: 8 Concepts Every Grant Writer Must Master For A Successful Proposal! Morgan C Giddings, PhD.

MSU Resources: Understanding the Review Process:
- INBRE
- EPScoR
- Data Management Plans
- ADVANCE
- IRB
- NSF Review Process Diagram and Explanation
- NSF Merit Review Facts
- NIH Applicant Resources around Reviews
- NIH Peer Review Guide
- Perspective of a new NSF Grant Submitter (video)
Session Five: YOUR PROPOSAL NARRATIVE

Proposals typically involve a number of pieces that ultimately “communicate” with the main proposal narrative. As the blueprint for the research project, it is critical that this central piece clearly and concisely describes the project overview, its aims and objectives, and the methods and plan of work. Part of that narrative is incorporating collaborators, co-PIs and other institutions. By mastering the proposal narrative, proposers can move on to the remaining pieces with relative ease.

- Importance of devising innovative, paradigm busting, responsive research projects
  - Brent Peyton, Professor, Chemical & Biological Engineering
  - TBD
- Paying attention to merit review criteria – Nika Stoop
- Working with co-PIs and other institutions
  - Ben Poulter, Assistant Professor, Ecology
  - Stephen Sofie, Assistant Professor, Mechanical & Industrial Engineering

Assignment(s) Due:

- Bring your revised project summary and specific aims
- Be prepared to discuss your conversation with your Funding Agency contact

Out-of-Class Work:

- Review NSF YouTube channel for ideas about innovation and the “wow” factor
- Draft your main narrative (5 pages minimum) and post in your dropbox for next session.

Materials

**NSF YouTube Channel**

**OSP Subcontracts/Subawards**
Session Six: THE SUBMISSION PROCESS AND NEXT STEPS

Plan for official submission of your proposal and strategize the remaining pieces – including budget and budget narrative.

- Project management and how to get to the finish line with your sanity intact - Michelle Flenniken, Assistant Professor, Plant Sciences & Plant Pathology
- Overview of the submission process – ePCF, eRA and Fastlane – Nika Stoop

Assignment(s) Due:

- Bring your draft project narrative to discuss in groups

In-class Work:

- Discuss draft project narrative
- Draft budget and budget narrative

Out-of-Class Work:

- Revise full project narrative and upload to dropbox by November 1 for review
- Make appointments with grant writing staff to help in the final submission of your grant.

Materials

OSP homepage with link to ePCF
OSP Information Sheet
Proposal Writing Guides
Grant Seeker’s Checklist

Budget –

- NSF
- NIH – Directions
- Other - OSP