

ADVANCE

Project TRACS

Transforming the culture of MSU to allow diverse faculty to flourish



Grant Writing Boot Camp For University Faculty A Facilitator's Guide

Third Edition



WELCOME



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Retention and advancement of faculty members are enhanced when they are successful in getting grants to support their research. Therefore it is important to provide them with grant writing training and resources, enabling them to be more productive and allowing them to flourish. The Grant Writing Boot Camp for University Faculty was designed to provide an introduction to the grant writing process in general and all the components that go into it. This includes institutional guidelines and creating a community of practice to support faculty beyond the course. This Grant Writing Boot Camp Facilitator Guide outlines the preparation that goes into the six-week course, and all of the resources the facilitator will need in order to execute a Grant Writing Boot Camp.

Whether your target demographic is female faculty in STEM fields or faculty all across campus, using this facilitator guide will allow you to structure a strong program and boost the success rates of grant writers on your campus. Faculty members learn from the invaluable experience, encouragement and support of grant-successful faculty, and meet great resource staff on campus that can further contribute to their project's depth and breadth. After completing Boot Camp, faculty members will have compiled a review-ready proposal in just six weeks!

As supporters of the Grant Writing Boot Camp, we are pleased to provide this information for other campuses attempting to grow their research enterprise and empower their faculty in their grant writing. We are so happy with the success of the Grant Writing Boot Camp here at MSU and we look forward to sharing in some of that success with you!

A handwritten signature in black ink that reads "Martha Potvin".

A handwritten signature in black ink that reads "Rene Reijo Pera".

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OVERVIEW

ADVANCE Project TRACS



“Metaphors matter because they are part of the storytelling that can compel change” (Eagly & Carli, 2007, p. 64). As First Lady Obama articulates, invoking the metaphor of a “runner’s track” suggests women faculty in male-dominated fields such as science, technology, engineering and mathematics (STEM) and other domains frequently find themselves on an “outside” track with hurdles to overcome and a longer distance to run than their male counterparts. The ADVANCE Project TRACS initiatives aim to transform MSU by removing those hurdles, advancing women to an equal starting point, not giving them a head start, and thus reducing the “accumulation of disadvantage” noted by Valian (1998). Even if we assume a very small, subtle form of bias toward women faculty in science, technology, engineering and math (STEM; accounting for as little as 5% of the variance) research shows that such “death by a 1000 cuts” results in a loss of opportunity for 29-50% of those women (Martell, Lane & Emrich, 1996).



MSU’s Project TRACS research team instituted an approach grounded in Self Determination Theory based on Transformation through Relatedness, Autonomy, and Competence Support to work specifically toward advancing faculty women in STEM and Social Behavioral Sciences (SBS).

- Relatedness—the experience of having satisfying and supportive social relationships and connections.
- Autonomy—the experience of acting with a sense of choice and volition and fully embracing one’s actions.
- Competence—the belief that one has the ability to influence and master important outcomes.

As Social Psychologist Dr. Jessi Smith, Principal Investigator (PI) and Director of MSU’s ADVANCE Project TRACS explains, “We don’t aim to replace [the system] with an old girl’s network, but rather an inclusive, fair, equitable and diverse network where everyone is given the tools needed for success. Project TRACS does not aim to give special favors to women in these fields nor does the advancement of these women faculty come at the expense of any other group,” Smith said. “Instead, we are advancing women faculty to an equal and fair starting line. By offering support to these women, we will transform MSU and benefit all faculty.”

One way to support success of new faculty is through grant writing training. Data suggest that women faculty are often an untapped resource as grant getters. As such, the **Grant Writing Boot Camp**, developed using a model from Montana State University’s College of Education, Health, and Human Development, allows female faculty better understanding of the grant writing process in its entirety, enabling them to feel more competent and autonomous while building relatedness and fulfilling connections as they engage in research. **Women are specifically invited to participate in Boot Camp, but all faculty and researchers are welcome.**

OVERVIEW

Enhancing Research Capacity and Opportunity

This Grant Writing Boot Camp for university faculty was developed in 2013 to enhance research capacity and opportunity, one of three key ADVANCE initiatives whose objective is to transform the culture of MSU by implementing sustainable strategies, programs, and policies that allow diverse faculty to flourish.

The Research Capacity and Opportunity Initiative institutionalizes systematic support for women faculty in male-dominated fields through grant pre-proposal trainings; establishes mentoring with successful grantees (Grant Facilitator Network); and establishes needed infrastructures to facilitate women engaging in interdisciplinary research. ADVANCE Project TRACS aims to break down barriers so that faculty and researchers – no matter their field or gender – reap the benefits that come about when diverse groups of people work together to innovate and create.

About the Grant Writing Boot Camp

The Grant Writing Boot Camp is designed to train faculty to successfully seek research grant funding in their field. Grant success has far-reaching impacts, including enhancing academic career advancement goals and retention of talent, enhancing university prestige as a research institution, and broadening the visibility of women in STEM fields at all educational levels.

This six-week workshop trains faculty to produce a solid, review-ready grant proposal. Participants have the opportunity to interact with grant-successful senior faculty, to work with peer support in writing groups, and to use a team of proposal support personnel who have the submitter's individual needs in mind. In these weekly two-hour sessions, the first hour of the session is devoted to lecture or discussion, and the remaining hour consists of hands-on writing and workshop activities.

Boot Camp Learning Objectives

When participants complete this course they will be able to:

- Produce a review-ready grant proposal summary and narrative.
- Find funding opportunities and address agency requirements.
- Prepare proposal budgets and accompanying documents.
- Meet specific university requirements for grant proposal submission.
- Understand the grant submission process including working with mentors, collaborators, program officers, and the grant review panel for their respective funding agency.

PLANNING & SCHEDULING

10-12 Weeks Before

- Select dates - Example: 6 consecutive Fridays, 10:00 am-12:00 noon
- Draft syllabus for Grant Writing Boot Camp ([Example Syllabus](#), page [16](#))
- Identify candidates to be on the Advisory Team (see page [9](#))
- Schedule/reserve meeting rooms, facilities and IT support for all sessions (For more details see Resources section, page [9](#))
- Identify co-sponsors for institutional support, ideas for recruiting presenters, and refreshments.
- Create marketing materials
 - Send to on-campus “Upcoming Events” list, university publications, and your website ([Example Flyer](#), page [23](#))
 - Send email to Deans/Department Heads: 1 month before school term begins ([Example Deans/Department Heads Email](#), page [24](#))

8-10 Weeks Before

- From draft syllabus, identify potential presenters - Ask Office of Sponsored Programs (OSP), Vice President of Research, Department Heads, and grant-active faculty for recommendations of dynamic speakers on campus
- Invite presenters and confirm dates and description of their presentations ([Example Presenter Invite Email](#), page [25](#))
- Request what materials and resources presenters will need (handouts, PowerPoint files, online access to presentations, etc., see examples, page [9](#))

4-6 Weeks Before

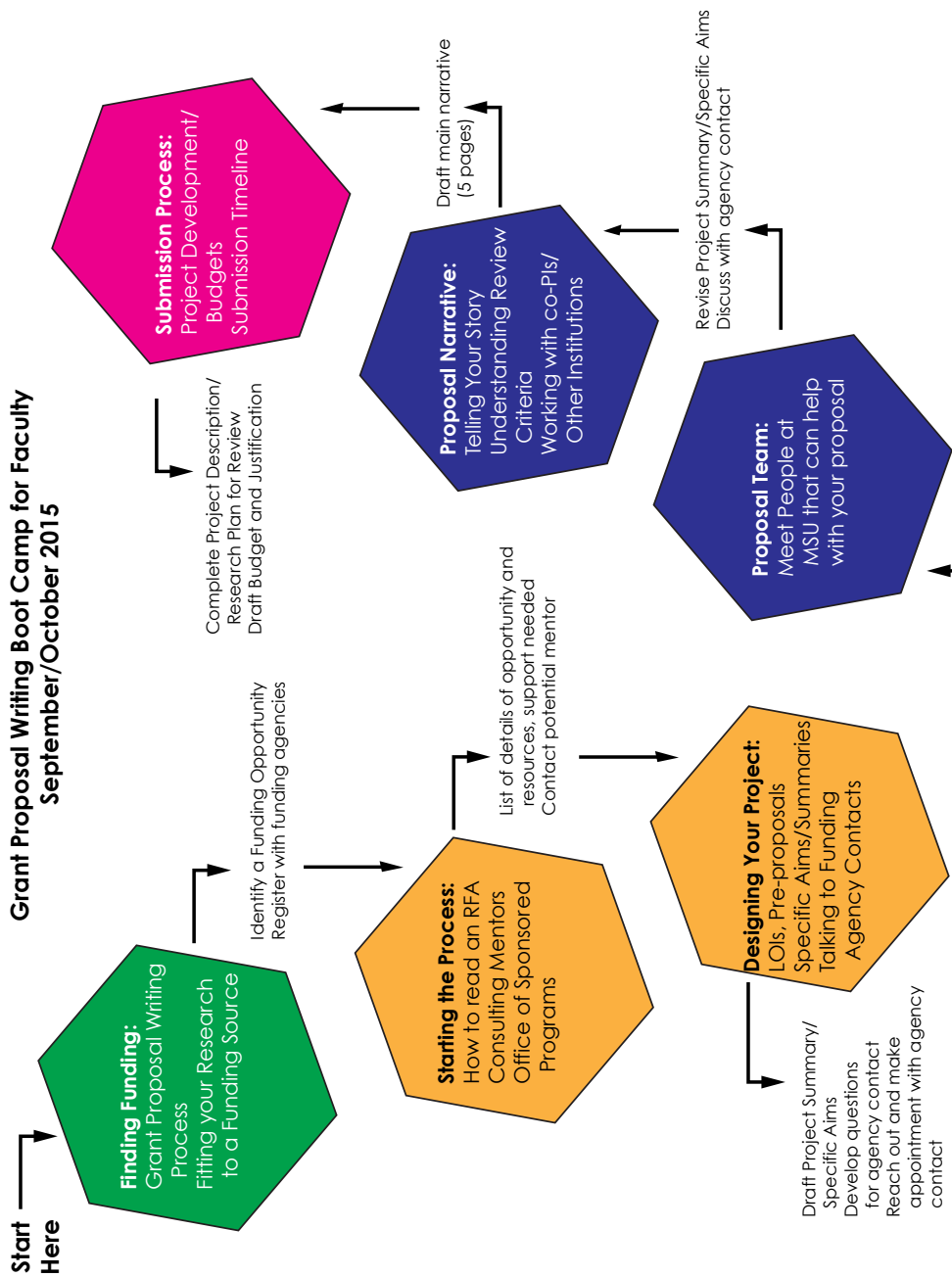
- Inform any other participants who may need to know about the dates. For example, an internal evaluator may wish to observe 1 or more sessions as well as arrange evaluation survey and post-event interviews with participants
- Begin to compile materials presenters will use for each session
- Website link to Boot Camp Reservation form (See example, page [29](#))
- Request a presentation or space for marketing materials at New Faculty Orientation & welcome event(s) for new faculty
- Request short presentation at early semester Dean/Department Head Meetings
- Send targeted invitations to new female faculty in STEM/SBS Departments
- Send targeted invitation to faculty through Office of Sponsored Programs, Center for Faculty Excellence, other Co-sponsors
- Send press release/PR materials to all Departments; campus news service

1-3 Weeks Before

- Confirm all presenters, co-sponsors, and reserved facilities/amenities
- Test any special technology in the classroom that might be required by a presenter
- Finalize presenters’ materials for each session and participant session materials (See example materials, page [9](#))
- Finalize syllabus
- Track participant reservations, wait list, cancellations or late additions
- Set up group information source such as Dropbox or Google Drive

OUTLINE OF SESSIONS

This is an outline of the subjects covered in the six-week course. A detailed syllabus is available on page [16](#).



ADVANCE Project TRACS
Montana State University
September 2015

RESOURCES

Boot Camp Facilitator

The Grant Submission Training Coordinator plays a key role in facilitating grant proposal preparation, coordinating trainings and workshops, and other activities to promote research capacity. Project TRACS of the MSU ADVANCE grant is working to enhance the research capabilities and opportunities of faculty, prioritizing women faculty, in the STEM/SBS fields. This position will need to effectively and proactively coordinate their activities with several offices on campus.

Time Required: 20 hours/week for 6-week Boot Camp + 20 hours preparation time = 80 hours

Estimated Salary: \$3,500.00 for the entire 6 week course (see detailed budget on page [11](#)).

Required Qualifications – Experience, Education, Knowledge & Skills

- ✓ Demonstrated successful grant writing, review, formatting, submission, and training experience.
- ✓ Successful experience in the development, analysis, and execution of budgets.
- ✓ SPIN and GENIUS, or other campus funding search software
- ✓ University requirements and logistics for grant submission through Office of Sponsored Programs or equivalent
- ✓ Experience with federal and state agency rules, regulations, and requirements.
- ✓ Successful experience working proactively with diversity and equity issues.
- ✓ Knowledge of university research programs, especially in the grant and contract administrative functions.
- ✓ Experience working in a university environment.
- ✓ Establishing working relationships with grant-successful faculty, interdisciplinary researchers, and campus resource staff
- ✓ Coordination of presenters in multiple disciplines
- ✓ Workshop presentation and curriculum delivery

The Successful Candidate Will

- ✓ Be able to work with a diverse array of faculty members and create an inclusive environment for all.
- ✓ Have superior organizational, written and oral communication, and editing skills.
- ✓ Possess excellent interpersonal skills, including demonstrated ability to coordinate activities between offices.
- ✓ Be able to work independently under pressure to meet inflexible deadlines and to prioritize responsibilities in a dynamic environment.
- ✓ Be able to execute multiple tasks and respond to multiple demands, and perform work with a high level of accuracy and attention to detail

Facilitator's Key Duties and Activities

- ✓ Plan, schedule, market, implement, and evaluate Grant Writing Boot Camp
- ✓ Plan, adapt, and revise the syllabus and participant materials
- ✓ Invite, schedule, prepare, and confirm prospective participants and faculty presenters
- ✓ Be prepared to find a replacement presenter—or present material yourself
- ✓ Coordinate with multiple departments and offices on campus for use of facilities, technical and equipment support for presenters and participants, catering services, internal evaluator, and all other requirements for an on-campus workshop event
- ✓ If resources allow, two co-facilitators is recommended for larger groups (such an OSP Pre-Award Specialist)

RESOURCES

Advisory Team

One of the key elements for having a successful Boot Camp is identifying grant-successful faculty to participate as presenters. Unless the Boot Camp Facilitator has a vast network of faculty that they can recruit from, a key resource for them is to **put together a three to four person advisory team**. Team members can be recruited from the Office of Sponsored Program, Faculty Excellence Programs on campus, and senior faculty with large networks of grant-successful faculty that they know from multiple agencies (NIH, NSF, USDA, DOE, private foundations, etc.)

Materials

Examples and templates for much of these materials are available starting on page [16](#) or online at <http://www.montana.edu/nsfadvance/research/bootcamp/facilitatorsguide.html>

- Syllabus outlining the six-week course
- Posters, emails for advertising
- Registration system
- BioForm for background information
- Information sharing mechanism
- Handouts, background reading for sessions
- Evaluation mechanism – form or survey or internal evaluator
- For each session: name tags; extra pens and pencils; sign-in (printed sheets or tablet check-in); extra copies of syllabus
- Flip charts and easels for group work

Room Setup

The classroom setup should promote interaction and discussion as the participants work on their grants. Presenters sometimes use presentations but often use information on the web so the classroom should have internet access.



- Arrive early for each session to set up the classroom.
- Prepare and set up presentation needs for each session's presenter(s).
- For group discussions, arrange tables and chairs for groups of 2–5. (optional)
- Ensure online access to the funding database used on your campus, e.g. SPIN, and any resources for this session.

TIP: Project your ADVANCE website or Program Website page as the session participants arrive.

RESOURCES

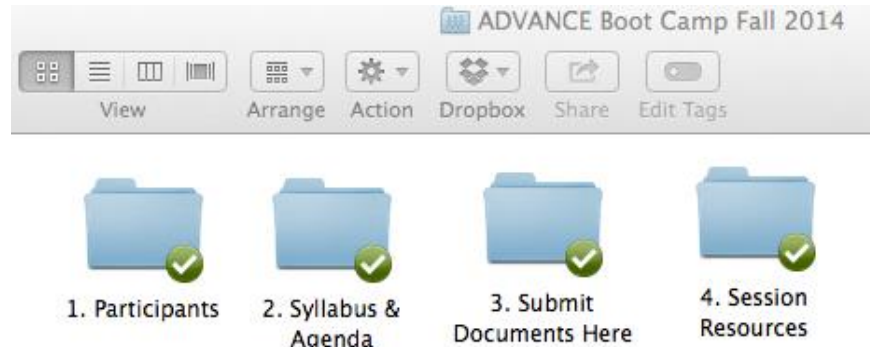
Document & Resource Sharing

An important aspect of Boot Camp is sharing materials between the participants as well as with the faculty presenters. The participants have noted that seeing examples of successful grants is extremely helpful in shaping their own submissions.

If there is an institutional shared drive, setup a folder for the class with materials for each session in it as well as folders for each participant. Participants are assigned to small groups or as partners and share their writing progress each week by posting drafts to a shared drive. If there are no central resources for document sharing, the facilitator could set up a Dropbox or GoogleDocs folder for participants' resources and submissions.

Resources from the course are a fluid set of documents and links, based on each session's presenters, ever-changing reference documents in the grant submission world, and any changes made in the syllabus based on actual reservations from participants. Seek out resources from granting agencies' current sites to suggest for presenter approval in advance of the session, and add new resources as they are found or suggested by presenters or participants.

Keep the Group Resources active throughout Boot Camp, adding helpful documents, until wrapping up after



the Boot Camp is completed. Inform all participants if the electronic Resources will be closed by a certain date.

TIP: Set up a Dropbox Folder or Google Docs connection for the group, and invite access to all participants, co-facilitators, evaluator, and any interested presenters.

Folder 1: "Participants" –

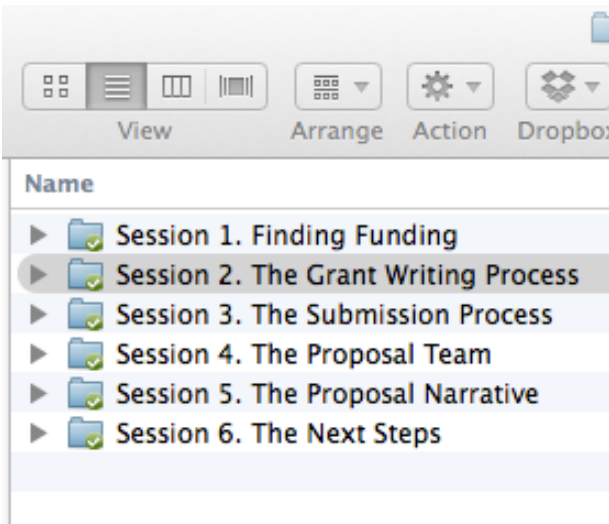
include the spreadsheet of participants you created from Registration Form data; update as the session progresses.

Folder 2: "Syllabus & Agenda" – include the latest versions of the syllabus and Boot Camp schedule, even if you hand out printed versions at the first session.

Folder 3: "Submit Documents Here" – create a sub-folder for each participant. Ask them to fill out and upload a quick BioForm that asks the participants' goals and research interests/proposal ideas. Even if you have collected their demographic information and research interests in the Registration Form data, asking participants to write their "elevator speech" is helpful ([Example BioForm](#), page 30).

Folder 4: "Session Resources" – populate sub-folders

for each session with resources participants can download to use in their own work.



RESOURCES

Budget

At MSU, ADVANCE Project TRACS Grant Writing Boot Camp is facilitated by ADVANCE's 0.5 FTE Grant Submission Training Coordinator. MSU's Vice-President for Research and Economic Development supports this position with half-salary support. A sample budget breakdown for a Grant Writing Boot Camp with 12 participants is as follows:

Category	Detail	Budget \$
Facilitator	20 hours/week for 6-week Boot Camp + 20 hours preparation time = 140 hours @ \$25/hour	\$3,500.00
Marketing Materials	Boot Camp Flyer Color Copies	\$50.00
Participant Materials	Workbooks: 12 @ \$50.00	\$600.00
Facility Use Fee	\$50/hour x 12 hours	\$600.00
Refreshments	\$10/person x 15/session x 6 sessions*	\$900.00
Follow Up Event	Networking Lunch \$15/person x 12 + 15 presenters**	\$405.00
Total	Estimated Budget	\$6,005.00

*Ask a co-sponsor to provide weekly refreshments from their budget, if possible.

** Optional, if desired by participants; may also be provided by a co-sponsor.

MEASURING IMPACT

Following Up After Boot Camp

(1) Arrange one-on-one consultations with Grant Coordinator, Office of Sponsored Programs staff, and other Campus Resource Personnel to track participant proposal progress and provide document support as well as connections to campus resources.

- Provide a sign-up sheet for the last session to schedule meetings the week following Boot Camp, and provide contact information for facilitators and presenters for participants' future use.

(2) Based on their grant submission needs, the group can elect to commit to a long-term meeting schedule (meeting once or twice a month), as writing groups, or individuals may work directly with the resource team they have assembled.

(3) For groups with imminent deadlines, a Mock Review Panel session could be developed.

- Facilitate a group mock submission (Project Summary, Project Description, Budget documents only) and assign review-panel experienced faculty as primary reviewers. Assign submitters to review others' proposals.
- Convene for a 2-hour session to hear primary reviewers' comments on each proposal, with secondary reviewers' assessments of the strengths and weaknesses of the proposals they have read.

(4) Keep a tracking record of all Boot Camp participants, submissions, pending, declined, and re-submitted proposals; it can take up to a year for submissions to be funded. Grant-active faculty become experienced submitters quickly and may submit multiple grants as PIs or co-PIs in a given year without staff assistance; request reports from OSP when tracking funded and pending submissions.

(5) Keep in touch with Boot Campers! Offer occasional new resources of interest to grant writers, and invite them to relevant training events.

(6) Stay Effective: respond to program evaluation reports to continue refining and improving Boot Camp to meet the needs of faculty in the competitive grant world.

Assessment

An internal evaluator assesses MSU's ADVANCE Project TRACS' programs. The evaluator conducts field observations of workshop sessions, analyzes data collected by evaluation questionnaire of all participants, and conducts post-workshop direct interviews with select participants. The evaluator's compiled results include a graphic of survey results, evaluator's observations of facilitators, participants and presenters, and excerpts of interviews (See page [31](#) or download a [sample evaluation questionnaire](#)).

MEASURING IMPACT

Does Boot Camp work?

Background: Women faculty face several obstacles to receiving external research funding. Discrimination during grant reviews, discounted contributions to team-science work, workload service disparities, and cultural norms all impact women's grant success. Moreover, research support predicts women's intentions to leave the university (Xu, 2008). As reported in *Beyond Bias and Barriers* (2007) NIH grants and contracts awarded in 2004 showed that only 24% of R01s were awarded to women, and that when awarded, women faculty receive less funding than men, especially for center grants. At Montana State University, the data tell a similar story: Since 2010, MSU received a total of 2332 grants with 26.2% of them going to women as compared to the overall percentage of women faculty ranging from 32.2% (FY10) to 37.3% (FY14). How to provide women faculty tools to be research successful? According to Self-Determination Theory (Deci & Ryan, 2000), effective functioning and personal growth emerge when autonomy, competence, and relatedness needs are supported. Informed by this theory, a 6-week grant writing bootcamp was designed by ADVANCE Project TRACS to:

- Enhance **autonomy** of faculty to take creative approaches with topics, methods, and funding sources
- Enhance **competence** of the faculty with tools and templates for navigating the grant paperwork and submission process
- Enhance **relatedness** of the faculty by creating small groups of similarly situated people and connections to senior science mentors

Methods: A one year pre/post boot camp design was conducted with participants in three boot camps offered six months apart, over an 18-month period. Twenty-one tenure track women faculty in STEM fields participated. Participants were at MSU an average of 3.7 years before taking part in boot camp. Data on grant activity was collected one year prior to and one year post boot camp.

Results: Paired sample t-test analyses found that compared to one year prior to boot camp, there was a:

- Significant increase in the number of external grants submitted overall (from M=1.4 grants submitted per person to M=3.5)
- Significant increase in number of proposals led as PI (from M=1.1 proposal led as PI to M=3.1)
- Significant increase in the number of external grants awarded (from M=.24 awarded to M=.90)
- Significant increase in the amount of funding dollars awarded (from M=\$11,428 to M=\$113,470)

Summary: results suggest that the grant writing boot camp intervention was effective in enhancing the research capacity of women faculty in STEM.

Citation: Smith, J. L., Rushing, S. Stoop, C. & Thoman, D. B. (2016, February). *Social psychological innovations to broadening participation within the academy one faculty microclimate at a time*. Paper presented at the Annual meeting of the Understanding Interventions that Broaden Participation in Science Careers. Philadelphia, PA

CHECKLIST

Download an [editable version of the checklist](#)

Timeline	Task	✓
PLANNING 10-12 weeks ahead	Set dates; plan schedule; draft syllabus; reserve rooms with appropriate layout/equipment; set budget; finalize admin approvals; Set up hospitality forms and arrange catering services. Plan and produce marketing materials; target participants lists and presenters/alternate presenters.	
MARKETING 8-10 weeks ahead	Send out marketing materials; list with campus events. Invite and schedule presenters. Design and Implement Reservation form.	
CONFIRMATIONS 5-6 weeks ahead	Confirm presenters; update Syllabus; begin to compile presenter materials and participant handouts for each session. Coordinate with Internal Evaluator to visit event.	
REGISTRATION 2-4 weeks ahead	Register Participants; set up Dropbox access and folders. Prepare and send out pre-workshop instructions to registered participants. Confirm all presenters and materials/resources.	
MARKETING + 2-3 weeks ahead	Additional campus marketing; additional registration if space available. Targeted email invites and follow up.	
TESTING 1-2 weeks ahead	Obtain media presentations from presenters, if applicable; test LCD projector and personal computer; obtain and test PowerPoint file(s) and SPIN access.	
FIRST WEEK OF BOOT CAMP	Late registrations and coordination of any single-session participants. Prepare participant workbooks or handouts and resources. Prepare sign-in sheets, workshop records, supplies tool kit. Confirm with first session presenters. Confirm room reservation and catering services. Test-drive room set up.	
DAY BEFORE EACH FOLLOWING WEEK	Confirm with presenters for last-minute needs or resources. Be responsive to participant's last-minute needs or changes.	
LAST SESSION	Confirm any follow-up activities; evaluation survey; thank you's to presenters, co-sponsors, and colleagues.	
WEEK AFTER	Thank You to all presenters and participants; evaluator.	
FOLLOW UP	One-on-One Meetings, Writing Groups, Events, and tracking for submissions and results.	

ADVANCE AT A GLANCE



The National Science Foundation's ADVANCE program began in 2001. Since that time, ADVANCE has invested over \$130 million in academic institutions working to increase the representation and advance the careers of women in science, technology, engineering, and math (STEM), and the social and behavioral sciences (SBS). While the ADVANCE program has a number of awards, the "Institutional Transformation" (IT) award is the most notable. These five-year, multi-million dollar cooperative agreements are awarded to a handful of universities every two to three years. The IT program emphasizes developing and testing programs and policies aimed at advancing women in STEM and SBS, and disseminating knowledge through original research that documents what works and what does not, and why.

ADVANCE grants are administered by NSF as cooperative agreements with campus communities focused on:

1. Developing systemic approaches to increase representation and advancement of women in academic STEM careers.
2. Developing innovative and sustainable ways to promote gender equity in the STEM academic workforce.
3. Contributing to the development of a more diverse science and engineering workforce.

More information about ADVANCE Project TRACS, Montana State University's ADVANCE Grant, can be found at:

<http://www.montana.edu/nsfadvance>



ADVANCE Project TRACS is also the recipient of the CUPA-HR Inclusion Cultivates Excellence Award. This award is given by the College and University Professional

Association for Human Resources and is sponsored by the Chronicle of Higher Education. ADVANCE Project TRACS was selected in recognition of our institutional initiatives and programs that have made a significant impact with respect to inclusive and equitable workplace practices, particularly those that have brought about cultural change.

EXAMPLES & TEMPLATES

Grant Writing Boot Camp Syllabus

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. The first hour of the session will be devoted to lecture or discussion, and the remaining hour will consist of hands-on participatory writing and workshop activities.

All sessions will be held in [example] Room XX from 10:00 am – 12:00 noon. Bring your laptop or tablet as this classroom offers internet-capable services. Coffee and sustaining snacks will be provided.

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 drive.

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:

1. Register for the SPIN funding database by signing up at <http://spin.infoedglobal.com>
2. Join the Boot Camp shared drive, 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. See information on each session (below) for dates documents need to be posted.
3. Register for your respective agency application portal (i.e. FastLane for NSF, eRA commons).

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 (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 [week after Boot Camp's last session].

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 (see next page), discuss to 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.

Presenters: Director, Center for Faculty Excellence; Director, Office of Sponsored Programs (OSP)

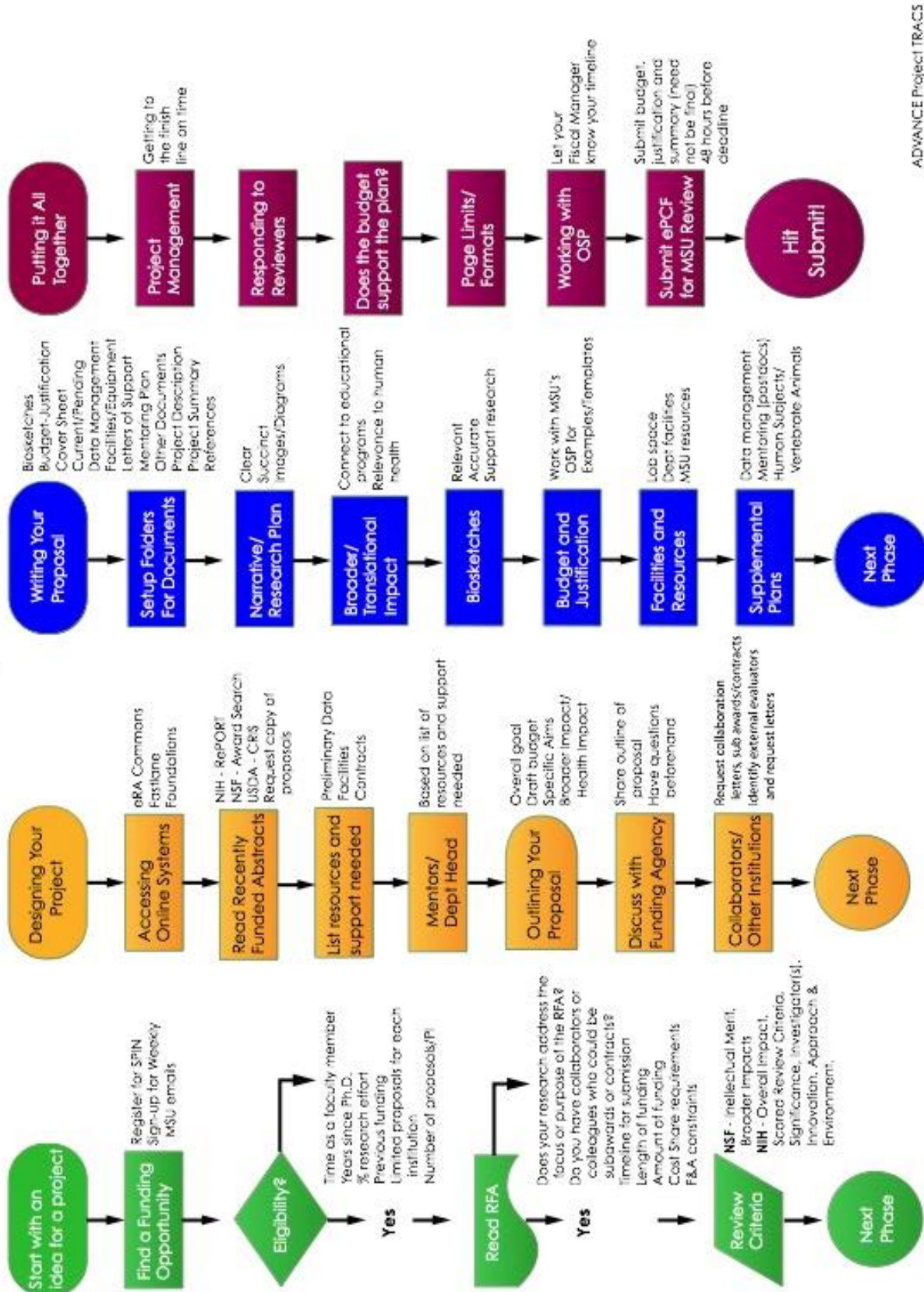
In-Class Work:

- Access SPIN and start a funding search

Out-of-Class Work:

- Run a funding search in the SPIN system and locate three promising opportunities.
- Save the Request for Proposals or Opportunity Description and post these documents to the group's shared drive; also bring a printout of your primary choice to the next class.
- Review R. Porter (2015) *Six Critical Questions to Launch a Successful Grant Proposal*. NCURA Magazine May/June.
- Review Zerzan, J. T., Hess, R., Schur, E., Phillips, R. S., & Rigotti, N. (2009). *Making the most of mentors: A guide for mentees*. *Academic Medicine*, 84(1), 140-144.

Overview of the Grant Proposal Writing Process



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.

Presenters: Director and a senior fiscal officer, OSP; senior grant-successful faculty.

Assignment(s) Due:

- Save the Request for Proposals or Opportunity Description and post these documents to the group's shared drive; 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.

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.

Presenters: Senior faculty with experience with looking at grants from the reviewer's point-of-view, Program Officer from NSF/NIH

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 shared drive; 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 R. Porter (2007) *Why Academics Have a Hard Time Writing Good Grant Proposals*. The Journal of Research Administration. Volume XXXVIII, Number 2, 37.
- Review Chronicle of Higher Education Article: “What to Say- and Not to Say- to Program Officers”

Session Four: ASSEMBLING 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.

Presenters: Representatives from University resources such as the library and research centers that can help faculty with their proposals.

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!”

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.

Presenters: Grant-successful faculty with experience in crafting narratives for STEM/SBS grant proposals and working with co-PIs and other institutions.

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 shared drive folder for next session.

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.

Presenters: Grant-successful faculty to talk about project management and the final submission process.

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 your shared drive in 2 weeks for review
- Make appointments with grant writing staff to help in the final submission of your grant.

Download an editable version (in Word) from our website at:

<http://www.montana.edu/nsfadvance/documents/Bootcamp/facilitatorguide/MSU-ADVANCE-BootCamp-Syllabus-Oct2015.docx>

EXAMPLES & TEMPLATES

Alternative Ways to Structure Boot Camp

Four-week program with Out-of-Class options:

- Schedule the first meeting as a gathering with intro to campus funding resources.
- Set up separate individual trainings with staff to introduce participants to SPIN or relevant funding search tools (or guide them to online resources) for the first assignment to research funding sources.
- Consider offering some of the presentations by media available to remote viewers if campus access is limited for some participants.
- Consider splitting the group into separate NSF and NIH tracks if sufficient participation and co-facilitators are available.
- Schedule the last meeting as a social gathering.

This version is essentially a four-week work plan and suitable for very motivated groups.

Other Supporting Workshops

For graduates of Boot Camps, offer an advanced level event focused on how to respond to reviews, how to revise and resubmit a grant proposal, how to advance grant writing skills.

Over time, grant writing offerings for faculty will consist of three tiers:

- Intro to Grants for new faculty;
- Grant Writing Boot Camp for learning to take an idea to written review-ready proposal;
- Advanced Proposal Skills for Grant-Active faculty.

EXAMPLES & TEMPLATES


Marketing Flyer

[Download an editable template from our website \(Word file\)](#)

ADVANCE Project TRACS, Center for Faculty Excellence, Office of Sponsored Programs, Vice President for Research & INBRE Present:

Grant Writing Boot Camp

Fall, 2014!



Or just the grant proposal. Yes let's start with that...

ADVANCE Project TRACS' Grant Writing Boot Camp is designed to help grant-interested faculty produce a quality, review-ready proposal in just six weeks, with valuable information and support from grant-successful facilitators.

SIX FRIDAYS! FROM 10:00 AM TO 12:00 NOON • SEPTEMBER 19 – OCTOBER 24
All meetings in Animal BioScience 145 • Limited Enrollment • Great Experience!
Reserve your space by September 10 – Go to: [www.montana.edu/nsfadvance!](http://www.montana.edu/nsfadvance)

**(9/ 19) Session One:
FINDING FUNDING**
Welcome, introductions, and an overview of Boot Camp's session format. Participants will present a short elevator speech on their project and any interdisciplinary interests. Presenters will introduce participants to funding resources at MSU, and guide them through a hands-on experience in researching external funding searches.

**(9/ 26) Session Two:
THE GRANT WRITING PROCESS**
Need-to-know information on the grant submission process, how major agencies operate, how other funding sources operate, how grants are reviewed, how grants are received and administered, how to time manage grant writing into your workload, and what to expect overall.


**(10/ 3) Session Three:
THE SUBMISSION PROCESS**
Grasp the scope of documents required for a grant submission, learn how to access guide information from agencies to organize and prepare all required documents, and campus resources available to support you in completing documentation.

**(10/ 10) Session Four:
ASSEMBLING YOUR PROPOSAL TEAM**
Explore the potential for pre-submission interaction with mentors and program officers, an often-overlooked yet critical part of a successful grant submission, as well as the ins and outs of working with other institutions and co-PIs, and the additional administrative requirements that compound these challenges, at least initially.

**(10/ 17) Session Five:
THE PROPOSAL NARRATIVE**
As the blueprint for a research project, the proposal narrative must clearly and concisely describe the project overview, its aims and objectives, and the methods and plan of work. The workshop format of this session will prepare participants to clearly identify what works in proposals, and what does not, by analyzing a number of proposal narratives.

(10/ 24) Session Six: THE NEXT STEPS
Plan for official submission of your proposal and strategize the remaining pieces with the assistance of personnel relevant to your team. Course follow up includes staff and campus resource assistance with your next steps and support from grant-writing colleagues. Yes, you can slay that dragon!

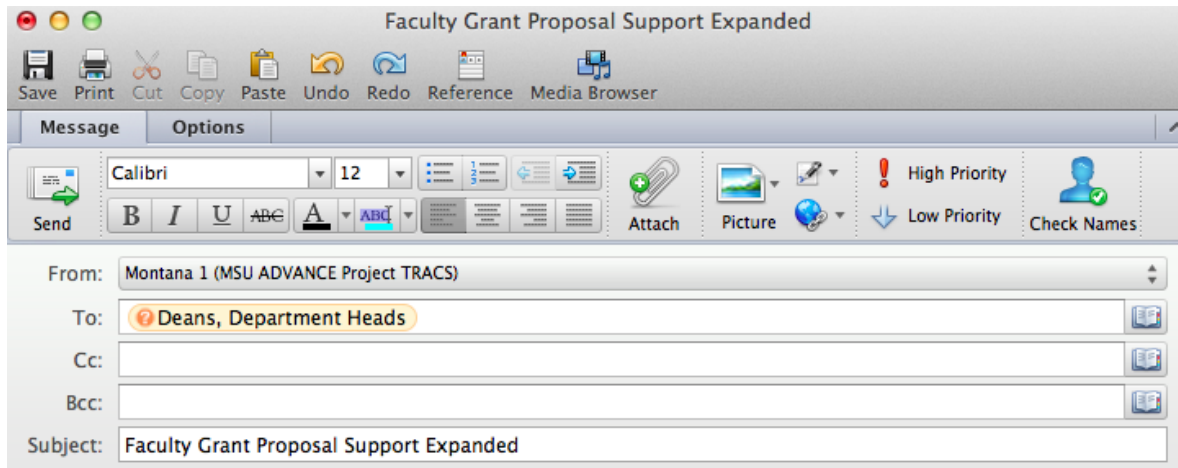
Strong coffee and healthy snacks (thanks, CFE!) will be served each week in a supportive, technology-facilitated space for our work.
For more information on our events see the ADVANCE Project TRACS website: www.montana.edu/nsfadvance



EXAMPLES & TEMPLATES

Email to Deans/Department heads

[Download an editable template from our website \(Word file\)](#)



Want us to showcase the range of grant support services to your faculty? ADVANCE Project TRACS' Grant Training Support Coordinator and OSP's Pre-Award Specialist are ready to make a (very) short presentation at your next Department Head Meeting or Faculty Retreat to describe the services available to faculty from ADVANCE Project TRACS and the Office of Supported Programs. Please contact us (information below) to schedule a meeting presentation, refer new faculty, or suggest faculty who could benefit from grant proposal support.

Upcoming Fall Research Capacity Events: Even if you do not need a faculty wide meeting, please do let your faculty know about these upcoming fall activities by ADVANCE Project TRACS. More information can be found [here](#).

Grant Writing Boot Camp will be offered again this fall (September 19-October 24). This popular six-week training offers grant-emergent faculty the opportunity to work with grant-successful faculty to produce a review-ready grant proposal. See the attached flyer for details; feel free to forward to faculty. Click [here](#) to access our RSVP form; register through September 10.

Foundation Grant Support Training Panel, a half-day event with knowledgeable experts, is coming up November 14.

Interdisciplinary Sandbox Groups and the Grant Facilitators Network will continue to expand so that we can facilitate connecting people together to create intersections of interest and fundable grant ideas.

Again, thank you for your support of ADVANCE Project TRACS programs! Please contact xxxx (for STEM/SBS faculty), or xxxx (all campus departments), below to arrange a short presentation or to refer individual faculty for research grant assistance.

[\[attach or imbed marketing flyer for Grant Writing Boot Camp\]](#)

EXAMPLES & TEMPLATES

Email Invite for Presenters

[Download an editable template from our website \(Word file\)](#)

Dear [NAME],

This fall ADVANCE program is offering a Grant Writing Boot Camp training session for grant-interested faculty, to enhance their confidence and skills in preparing quality proposals. Your participation in Boot Camp as a presenter has been integral to the success of this dynamic ongoing program, and I hope you will consider working with us this year.

I am the facilitator for the course and have attached the flyer for this year's Boot Camp.

We would like to pencil you in for:

Date, Session Number

Type of presentation, target length

Can you let me know at your earliest convenience if your schedule allows you to present at Grant Writing Boot Camp?

Many thanks for your assistance with ADVANCE events. ADVANCE is only successful because of the outstanding team of administrators, faculty, staff, and students working to accomplish our mission.

I look forward to working with you!

Best,

[Facilitator] and the ADVANCE Team

EXAMPLES & TEMPLATES

Email for Participants

[Download an editable template from our website \(Word file\)](#)

Dear Boot-Campers!

I hope you are ready for some serious grant writing adventures! We are looking forward to having you join us on [DATE HERE]. Coffee and snacks will be provided.

Please see the attachments:

- Overview of the six-week course
- List of the participants, facilitators, presenters
- Dr. Tara Gray's *Publish and Flourish* Handout

A detailed syllabus will be circulated on the first day of class. It will provide more information about session format and content, as well as instructions for out-of-class “assignments.” Our hope is that you will view this as a facilitated and supportive space to finalize a really good proposal. The format of each session will generally consist of one hour of discussion and one hour of hands-on workshop or writing activities.

The list of your fellow grant writers and facilitators is provided should you need to contact one of them during the course of the training, and simply to know who your fellows are on this journey. Some part-time participants will cycle in and out, but the core group will remain the same.

Pre-Course Preparation:

1) To help organize our writing practice, we will reference Dr. Tara Gray's *Publish and Flourish*, a set of techniques that help to 'get the writing done' both in and out of class.

- **Before you arrive on [DATE], please set aside some time to view Dr. Gray's video**
➤ [Watch it Now](#)

2) Sign-up in the SPIN/GENIUS system by [DATE] (if you have not already).

- **To sign up for SPIN/GENIUS, please follow these instructions:** Since you will sign up for an account with a password, you will need to self-register by following this link:
<http://www.montana.edu/wwwvr/osp/fundings.html>
- **Locate this section, and follow these directions:** Create your faculty profile in **GENIUS**. Choose and save keywords that identify your areas of research interest, and you will receive e-mail alerts of new funding opportunities as they become available. Search the GENIUS database to identify collaborators worldwide. SPIN becomes accessible from off campus with your Username and Password.

Please bring your laptop if you wish to follow along with the SPIN tutorial. I will have a guide to give to you with some other materials, so if you don't have a spare laptop, then it is no problem.

If you have any questions, please feel free to contact me.

Best wishes,

[Facilitator] and the ADVANCE team

EXAMPLES & TEMPLATES

Materials and Resources

Session One: Finding Funding

- “Finding Funding” guidelines and tips available from MSU’s Office of Sponsored Programs: <http://www.montana.edu/research/osp/gettingstarted.html>
- “Principal Investigator Guide” from Office of Supported Programs <http://www.montana.edu/research/osp/piguide/index.html>
- OSP’s guidelines for accessing/using Grants.gov: <http://www.montana.edu/research/osp/general/Grantsgov.html>
- SPIN/InfoEd site for login and guides: <http://infoedglobal.com>

Session Two: Starting The Grant Writing Process

[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](#)

OSP’s Principal Investigator Guide: <http://www.montana.edu/research/osp/piguide/index.html>

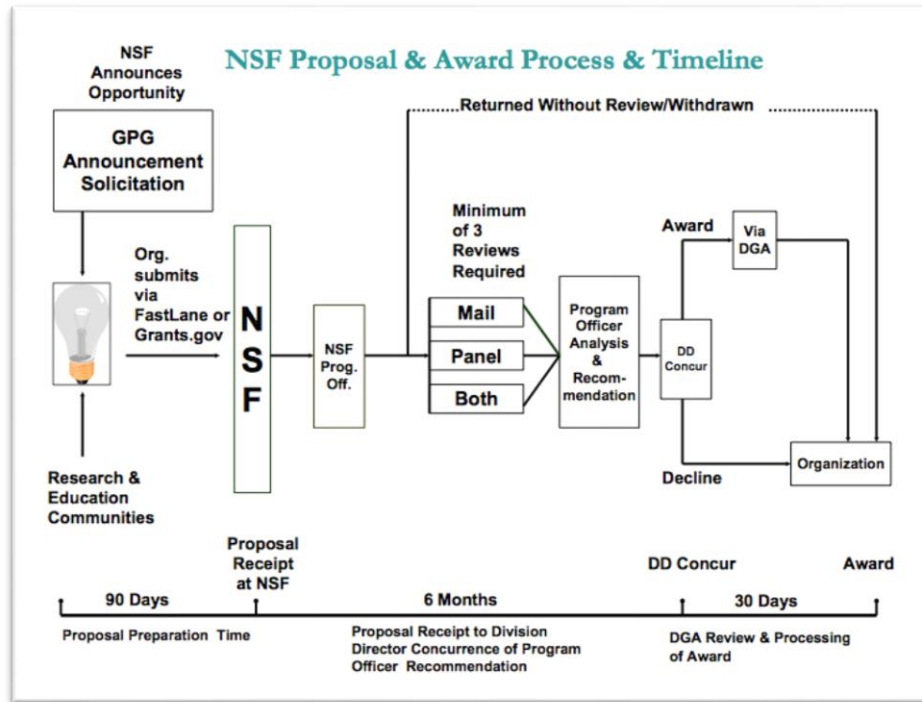
Session Three: Designing Your Project

- Letters of Intent – [Foundations](#)
- Data Management Plan – [NIH NIAID](#)
- Personal Statement on the [NIH Biosketch](#)
- Facilities and Resources
- [FAQs for NIH](#)
- Access information and online form for ADVANCE Project TRACS’ Grant Facilitator Network: <http://www.montana.edu/nsfadvance/research/gfn.html>
- Talking with your Program Officer
 - Hints for [NIH](#), [NIAID](#)
 - Chronicle of Higher Education Article: [What to Say- and Not to Say- to Program Officers](#)

Session Four: Your Proposal Team

- Links to University resources in grant writing
- Sample Letter to Mentor and/or Program Officer, as recommended by presenters

- Links to: latest versions of NIH and/or NSF review panel videos; NSF Submitter's Experience YouTube, or any relevant sources as recommended by presenters



Session Five: Your Proposal Narrative

- Access links to latest versions of NSF Review Process Chart and NIH Review Process Document; access to any relevant funding agency FAQ or video channels as recommended by presenters.
- Access to Presenter Presentation PowerPoint or Vimeo on Narrative Structure for Grant Writers.
- Presenter-approved links and/or handout on Proposal Editing and Polishing.
- Written sources on writing proposals, such as *The Chicago Guide to Communicating Science*, Scott L. Montgomery, 2003 (Chapter 11: The Proposal)

Session Six: The Submission Process and Next Steps

- Links to information about the University submission process.
- Links to budget templates and examples of justification formats.

Boot Camp Reservation Form



Grant Writing Boot Camp Reservation

Yes! I would like to attend the ADVANCE Project TRACS' Grant Proposal Writing Boot Camp September 19 - October 24, 2014.
Friday from 10:00 am - 12:00 noon in Animal BioSciences Building (ABB) 145.
Please send me the pre-Boot Camp materials.

* Required

Name *

Department *

Position Title *

Email *

Best contact phone number *

Current proposal or research interest *

I plan to participate in Boot Camp as follows *

- I plan to attend all sessions
- I can only attend some sessions; contact me.
- I attended a previous Boot Camp and want to review a session; contact me

Submit

Never submit passwords through Google Forms.

EXAMPLES & TEMPLATES

Boot Camp Bio Form

[Download an editable template from our website \(Word file\)](#)

Name:

Department:

About Me:

My goals for this Grant Writing Boot Camp are:

My Research Interests/Current Proposal Ideas:

(Draft a few sentences as an “elevator speech” you can present at Boot Camp Session One to introduce your colleagues to your proposed grant project)

EXAMPLES & TEMPLATES

Evaluation Questionnaire

[Download an editable template from our website \(Word file\)](#)

This six-week Grant Writing Boot Camp aimed to help you write a review-ready grant proposal. Please help us improve the training by responding candidly to the following statements:

Scale Definition: 1 - Strongly Disagree 2 - Disagree 3 - Neither Agree nor Disagree 4 - Agree 5 - Strongly Agree

I felt free to express my ideas and opinions during Boot Camp	1 2 3 4 5
Boot Camp increased my confidence in my ability to do well at grant writing	1 2 3 4 5
I really like the people I worked with during Boot Camp	1 2 3 4 5
I do not feel very competent in grant writing	1 2 3 4 5
Most days I feel a sense of accomplishment from the Boot Camp	1 2 3 4 5
I consider the people in Boot Camp to be my friends	1 2 3 4 5
As a result of Boot Camp, I am more likely to apply for external grant funding	1 2 3 4 5
I think Boot Camp will have a positive impact on my career advancement	1 2 3 4 5
I would recommend Boot Camp to my colleagues	1 2 3 4 5

I was able to attend [] all sessions [] most sessions [] one or two sessions.

Which session did you like the most? Why?

Which session did you like the least? Why?

How can the ADVANCE Grant Writing Boot Camp be improved?

NOTES



Invoking the metaphor of a “runner’s track” suggests women faculty in frequently find themselves on an “outside” track with hurdles to overcome and a longer distance to run than their male counterparts.

We aim to transform MSU by removing those hurdles and advancing women to an equal starting point.

Leon Johnson Hall 319
P.O. Box 173095
Bozeman, MT 59717-3095
Email: advance@montana.edu
<http://www.montana.edu/nsfadvance>

This Third Edition Facilitator’s
Guide brought to you by the Grant
Writing Boot Camp Team

Micaela Young
OSP Pre-Award Specialist

Dr. Chatanika Stoop/
Laura Freeburg
Grant Submission Training Coordinator

Dr. Suzanne Held
Professor of Health & Human
Development
Associate Dean for Research
Development

Dr. Jessi L. Smith
ADVANCE Director
Professor of Psychology



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