



BALL STATE UNIVERSITY

Office of Research Integrity

NSF Graduate Student and Post-Doctoral Scholar Mentoring Plan Guidance

Ball State University Office of Research Integrity

The information, recommendations, and templates provided in this document are meant to guide Principal Investigators (PIs) in creating a mentoring plan for graduate students and post-doctoral scholars receiving support from a National Science Foundation (NSF) funded project. Any mentoring plan submitted for consideration to the NSF should be designed specifically for the proposed project.

Mentoring Plan Parameters

Mentoring plans should be no longer than 1 page and cannot be used to circumvent the 15-page proposal page limit. Only one plan should be created outlining mentoring activities for all graduate students and post-doctoral scholars; however, PIs may describe how mentoring activities will be applied to the two categories of mentees within the plan. Mentoring plans will be evaluated as part of the application package under the Broader Impacts criterion. For proposal preparation, formatting, and content requirements, reference [NSF Proposal & Award Policies & Procedures Guide \(PAPPG\) 24-1 Chapter I, Part I](#).

Special Considerations

Central to mentoring are the relationships that form between mentors and mentees. The purpose of a mentoring plan is to detail how a mentor will facilitate experiences and training to enhance a mentee's knowledge and skill development.

Although the NSF does not prescribe a specific format or content for mentoring plans, mentors are encouraged to create impactful and unique experiences that support mentors in their future careers.

“Examples of Mentoring activities include, but are not limited to, career counseling; training in preparation of grant proposals, publications, and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas; and training in responsible professional practices.”

[NSF PAPPG 24-1 Chapter II.D.2.i\(1\)](#)

With this in mind, consider the following when developing a mentoring plan:

Conveying Mentoring Philosophy and Expectations:

- Share your mentoring philosophy and expectations for the work environment, policies, procedures, and the mentoring relationship with mentees through clear and open communication.

Communicating Roles and Responsibilities:

- Clearly define your role and responsibilities as a mentor to mentees, outlining the frequency and format of meetings, and how and when feedback will be received.

Providing Training and Guidance in Responsible Conduct of Research

- Address how mentees will be guided in responsible and ethical research practices through training program completions, modeling, and hands on experience.

Creating a Safe and Inclusive Environment:

- Foster a work environment where mentees feel valued and encouraged to take risks and learn from mistakes.

Continued Mentor Skill Development:

- Commit to ongoing mentor skill development and provide experiences that go beyond your own strengths and skill set.

Measuring and Communicating Progress:

- Establish methods to measure and communicate a mentee's progress toward goals.

Being Responsive to Evolving Goals:

- Stay responsive to the evolving goals and needs of mentees and adapt mentoring strategies accordingly to support their development.

The success of the proposed mentoring plan will be evaluated by tracking each mentee's progress through an Individual Development Plan and through reporting mentoring activities to the NSF in annual and final progress reports. The attached mentoring plan template may be used in creating a project-specific mentoring plan. *Note: this template should be modified to meet the unique needs of each project.*

For inquiries about mentoring plan requirements, contact your [SPA Proposal Manager](#), or [Rachael Alaniz](#), Responsible Conduct of Research Officer:

Sample Language for use in NSF Mentoring Plan

Note: The sample language in this document should be modified to meet the unique needs of each project

Mentoring Philosophy and Expectations will be communicated to mentees through team meetings and individual sessions scheduled between <PI name> and each graduate student or post-doctoral scholar mentee. An initial team meeting will be held within <time frame> of beginning work on <project title>, during which project-specific policies, procedures, and expectations will be discussed.

Meetings with each mentee will occur regularly to establish clear goals and expectations for the mentor and mentee. To define roles, goals, and expectations for the partnership, each mentee and the mentor will use a mentorship toolkit, from which information gathered will be used to create an Individualized Development Plan (IDP) that clearly defines the roles and responsibilities of the mentee and mentor within <time frame> of beginning work.

Career Counseling and Advising will be provided to each mentee by <PI name> through ongoing discussions and guidance tailored to the mentee's professional goals. Mentees will be invited to participate in professional networking events and will have opportunities to participate in career-building exercises and experiences by giving presentations and assisting with project publications. Attendance and participation in BSU Career Center on-campus Career Ready workshops, resume building, and interview assistance programs will be encouraged for all mentees supported by project funds.

Training in Preparation of Grant Proposals will be provided by <PI name> by involving mentees in proposal preparation and in writing annual progress reports. Through involvement in these processes, mentees will gain skills in identifying key research questions; describing objective, approach, and rationale; work plan and timeline construction; and budgeting. Students will also have the opportunity to review and discuss previously submitted grant proposals with the mentor.

Publications and Presentations resulting from the grant-supported work will be collaboratively prepared with mentees under the supervision of <PI name>. The roles of graduate students and post-doctoral scholars will vary depending on individual strengths and emerging skills identified in IDPs. An authorship agreement will outline the specific contributions that merit authorship credit or acknowledgment and will address author order.

Mentees whose IDPs include objectives related to presenting research findings at academic conferences will receive training and feedback to enhance their presentation skills and will have opportunities to present the grant-funded work at conferences, as opportunities arise. To assist with travel expenses for conference presentations, mentees may apply for Aspire Student Travel Grants through the BSU Sponsored Projects Administration Office.

Instruction on Responsible Conduct of Research/NSF's Responsible and Ethical Conduct of Research (RCR/RECR) will be provided on an ongoing basis by <PI name> through modeling and discussions of ethical decision-making. Mentees will receive further instruction in RECR through mandatory participation in BSUs RCR Student Training Program, an interactive in-person training program offered by the Office of Research Integrity that meets for 10 hours over the course of the academic year. Formal training and mentor-led modeling and discussion will include training in safe and inclusive research environments free from discrimination and harassment and a special focus on effective research collaboration and the importance of including those from diverse disciplinary areas and backgrounds in collaborations.

Progress Monitoring will be done <frequency> through <in-person/virtual> meetings between each mentee and the PI. Progress meetings will include assessing progress toward IDP proposed outcomes, identifying strengths and opportunities for growth, and making changes to the IDP in response to the evolving goals and needs of the mentees. Mentoring strategies will be adapted as needed to support the mentee's development.

References

Chapter II: Proposal Preparation Instructions - Proposal & Award Policies & Procedures Guide (PAPPG)
(NSF 23-1) | NSF - National Science Foundation. (2024).

NSF 101: The postdoctoral mentoring plan | NSF - National Science Foundation. (n.d.).

Sample Mentoring Plan Adapted From

Harvard University. (2024). NSF Mentoring Plan. *Research Administration Services*.
https://research.fas.harvard.edu/resources/nsf_postdoctoral_mentoring_template

Marquette University. (n.d.). Sample Postdoctoral Mentoring Plan for an NSF Proposal. *Office of Research and Sponsored Programs*.
https://www.marquette.edu/orsp/documents/sample_postdoc_mentoring_plan_for_an_nsf_proposal.pdf

University of Oregon. (n.d.). Postdoctoral Mentoring Plan. *Office of the Vice President for Research and Innovation*. <https://research.uoregon.edu/sites/default/files/2020-05/Postdoctoral%20Mentoring%20Plan%20template%26%20boilerplate.docx>