PREP Research Mentor Training Seminar
Summer 2024

Time: 1:00 PM – 2:30 PM, Mondays
Location: Union South (exact room displayed on monitors day of)

Facilitators:
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Seminar Information:

Overall Seminar Objective:
Seminar participants will work with a community of peers to develop and improve their mentoring skills. By the end of the sessions, participants should be able to clearly articulate a personal mentoring philosophy to anyone inside or outside their discipline, and have multiple strategies for dealing with mentoring challenges.

Content:
The content of each session in this research mentor training seminar is designed to address the key concerns and challenges identified by research mentors. The topics include:

- Aligning Expectations
- Promoting Professional Development
- Maintaining Effective Communication
- Addressing Equity and Inclusion
- Assessing Understanding
- Fostering Independence
- Cultivating Ethical Behavior
- Promoting Mentee Self-Efficacy

In addition to the general content about research mentoring, all of the case studies and some of the discussion questions draw specific attention to the issues related to multidisciplinary research mentoring.

Much of the content of this seminar is adapted from *Entering Mentoring: A Seminar to Train a New Generation of Scientists*; created by Jo Handelsman, Christine Pfund, Sarah Miller, and Christine Pribbenow, with support from Howard Hughes Medical Institute Professors Program (PI: Jo Handelsman). The *Entering Mentoring* Seminar materials were adapted through the Delta Program in Research, Teaching, and Learning with funding from the National Science Foundation (Grant # 0717731; PI: Christine Pfund). The seminar is being offered online through the CIRTL Network with support from the National Science Foundation Grant # DUE-0717768. A 2nd edition of the curriculum was published in 2015: Pfund, C., Branchaw, J. and Handelsman, J. (2015). *Entering Mentoring* 2nd Edition. New York, NY: W.H. Freeman & Co.; Pfund C. and Handelsman J., eds. Entering Mentoring Series.

Seminar Format and our Role of the Facilitators:

Experiential learning and facilitated discussion form the structural foundation of this research mentor training seminar. The content and process are based on six core principles in mentoring but the outcomes of the seminar are based heavily on the contributions of seminar participants as they integrate their diverse experiences into the seminar materials and activities. The case studies and reading materials provide a tangible starting point for discussion but you are encouraged to move from hypothetical examples to your own experiences with undergraduate researchers. Our role as facilitators is to enable you to take ownership of your own learning by helping you to engage in self-reflection and shared discovery and learning. We will do our best to guide you towards meeting the learning objectives of this seminar, but importantly, our role is not to be an expert on mentoring.

Delta Program and CIRTL Network Information:
The Delta Program at the University of Wisconsin-Madison is the local implementation of the Center for the Integration of Research, Teaching and Learning (CIRTL). CIRTL is promoting the development of a national faculty in science, technology, engineering, and mathematics (STEM) committed to implementing and advancing effective teaching practices for diverse student audiences as part of their professional careers. The CIRTL Network has and continues to design, implement and evaluate programs for STEM future faculty development.

To meet the future challenges facing science, technology, engineering and mathematics higher education in the United States, CIRTL expanded in 2008 to become a network of six partner universities. Participating institutions work together to promote professional development in teaching and learning for faculty and future faculty. Participating institutions include: Howard University, Michigan State University, Texas A&M University, the University of Colorado at Boulder, the University of Wisconsin-Madison, and Vanderbilt University. In Fall 2011, the Network expanded to 22 institutions.

Relevant Websites:
Delta: www.delta.wisc.edu
CIRTL Network: www.cirtl.net
Mentoring Websites:
www.researchmentortraining.org
https://mentoringresources.ictr.wisc.edu
http://myidp.sciencecareers.org/

Sessions	Topics	Read before meeting	Reference during meeting	Complete after meeting
1: May 27th	**Introduction to Mentor Training**	-	-	First meeting with your PREP student
2: June 3rd	**Aligning Expectations**	Ch 1 Mentoring: Learned, not taught	Ch 2: Aligning Expectations	Draft mentoring compact/expectations document
3: June 10th	**Promoting Professional Development**	Ch 3: Individual Development Plan Examples	Ch 3 Case Study: To be or not to be a PhD	Draft Individual Development Plan
4: June 17th	**Maintaining Effective Communication**	Ch 4 Case Study: The slob	Ch 4: Reflecting on your Mentoring Relationship	Communication check in with mentee
5: June 24th	**Increasing Mentee Research Self-Efficacy Beliefs; Sharing challenges and solutions**	Ch 4: The self efficacy tool box	Ch 4: Self Efficacy case study and handouts	Goal to focus on mentee self efficacy
6: July 1st	**Addressing Equity and Inclusion**	Ch 5: Benefits and Challenges of Diversity	Ch 5 Case study: Is it OK to ask?	Reflection on your own experiences, contributions to mentoring philosophy
7: July 8th	**Assessing Understanding**	Ch 6: Assessing Understanding Scenarios	Ch 6 Mentoring Tools	Revisions to IDP and mentoring compacts
8: July 15th	**Fostering Independence**	Ch 7: Fostering Independence Case Studies	Ch 7: Mentoring Research Writers	Assessment of your mentee's independence
9: July 22nd	**Cultivating Ethical Behavior**	Ch 8: Cultivating Ethical Behavior Case Studies	Discuss examples of ethical conduct in your area/lab	Check in meeting with mentee about presentation
10: July 29th	**Articulating Your Mentoring Philosophy and Plan**	Ch 9: Mentoring reflection worksheet	Share ideas for wrapping up project and extending mentoring relationship	Support mentees for presentation! Outline process for ongoing communication after they return home
11: August 5th	**Post PREP debrief**	Come prepared to discuss what worked well, what could be improved with your PREP program experience		Mentor feedback forms

Learning Objectives for the Research Mentor Training Seminar

<u>Overall Seminar Objective:</u>
Seminar participants will work with a community of peers develop and improve their mentoring skills. By the end of the class participants should be able to clearly articulate a personal mentoring philosophy to anyone inside or outside their discipline, and have multiple strategies for dealing with mentoring challenges.

<u>Objectives for Each Seminar Topic:</u>

<u>Introduction</u>

Mentors will have the knowledge and skills to
1. Learn about other mentors in the group to begin building a learning community
2. Reflect on group dynamics and ways to make the group functional
3. Establish ground rules for participation
4. Identify qualities of good research projects for their mentees
5. Prepare to establish effective research mentoring relationships with their mentees

<u>Aligning Expectations</u>

Mentors will have the knowledge and skills to
1. Design and communicate clear goals for the research project
2. Listen to and consider the expectations of their mentee in the mentoring relationship
3. Consider how personal and professional differences may impact expectations
4. Clearly communicate expectations for the mentoring relationship
5. Align mentee and mentor expectations

<u>Promoting Professional Development</u>

Mentors will have the knowledge and skills to
1. Identify the roles mentors play in the overall professional development of their mentees
2. Develop a strategy for guiding professional development using a written format
3. Initiate and sustain periodic conversations with mentees on professional goals and career development objectives and strategies
4. Recognize and engage in open dialogue on balancing the competing demands, needs, and interests of mentors and mentees (e.g., research productivity, grant funding, creativity, independence, career preference decisions, nonresearch activities, personal development, and work-family balance)

<u>Maintaining Effective Communication</u>

Mentors will have the knowledge and skills to
1. Provide constructive feedback
2. Use multiple strategies for improving communication (in person, at a distance, across multiple mentors, and within appropriate personal boundaries)
3. Engage in active listening

4. Communicate effectively across diverse dimensions, including varied backgrounds, disciplines, ethnicities, and positions of power

Increasing Mentee Research Self–Efficacy Beliefs

Mentors will:
1. Define and articulate what self-efficacy is and its four sources
2. Identify signs of self-efficacy in relation to research related tasks
3. Articulate their role in fostering mentees' research self-efficacy
4. Practice strategies for building mentees' self-efficacy in research

Addressing Equity and Inclusion

Mentors will have the knowledge and skills to
1. Increase understanding of equity and inclusion and their influence on mentor-mentee interactions
2. Recognize the impact that conscious and unconscious assumptions, preconceptions, biases, and prejudices have on the mentor-mentee relationship and acquire skills to manage them
3. Identify concrete strategies for learning about and addressing issues of equity and inclusion

Assessing Understanding

Mentors will have the knowledge and skills to
1. Assess their mentee's understanding of core concepts and processes and ability to develop and conduct a research project, analyze data, and present results
2. Identify reasons for a lack of understanding, including expert-novice differences
3. Use diverse strategies to enhance mentee understanding across diverse disciplinary perspectives

Fostering Independence

Mentors will have the knowledge and skills to
1. Define independence, its core elements, and how those elements change over the course of a mentoring relationship
2. Employ various strategies to build their mentee's confidence, establish trust, and foster independence
3. Create an environment in which mentees can achieve goals

Cultivating Ethical Behavior

Mentors will have the knowledge and skills to
1. Articulate ethical issues they need to discuss with their mentees
2. Clarify their roles as teachers and role models in educating mentees about ethics
3. Manage the power dynamic inherent in the mentoring relationship

Articulating Your Mentoring Philosophy and Plan

Mentors will have the knowledge and skills to

1. Reflect on the mentor-training experience
2. Reflect on intended behavioral or philosophical changes
3. Articulate an approach for working with new mentees in the future