

**Crop and Soil Sciences Training Plan for Responsible Conduct of Research and
Scholarship for NSF Compliance - November 30, 2009**

Initial Training (Minimum 5 hours)

1. All individuals will review relevant material on the MSU Graduate School and research integrity office websites; <http://rio.msu.edu/> , <http://grad.msu.edu/rcr/> and <http://grad.msu.edu/publications/docs/integrityresearch.pdf>. Subjects to be reviewed include; A. Data acquisition, management, sharing and ownership, B. Publication practices and responsible authorship, C. Peer review and D. Research misconduct.

Twice a year, the PI will discuss important issues with the students, post/docs and staff.

Total for this segment: 2-3 hours

2. Face-to-face discussion with individual P.I.s: Readings as assigned from the Graduate School “research integrity” website (under development) and from the MSU Research handbook, then sharing of each P.I. the required NSF **Conflict of Interest** form with the students/postdocs to initiate a discussion of our personal circumstances related to the funded project and to educate and provide opportunity for questions related to Conflict of Interest in general.

Total for this segment: 30 minutes

3. Students and post-docs will take the seminar on “Research Misconduct” presented by the MSU Graduate School. They will also review the PPT developed by the Graduate School on research misconduct.

Total for this segment 1-2 hours

4. Mentor and trainee responsibilities will be reviewed at <http://grad.msu.edu/publications/docs/studentadvising.pdf> The PI will discuss the “best practices” related to collaborative research.

Total for this segment: 1 hour

5. If the project deals with human subject research, the individuals associated with a project will be certified by the MSU Human Research Protection Program (HRPP) <http://www.humanresearch.msu.edu/> . This training includes the online MSU tutorial for HRPP http://35.8.104.116:591/ucrihs/ucrihs_tutorial/ .

Total for this segment: 2-3 hours

6. If the project deals with animal welfare, the individuals associated with this project will review the guidelines at the MSU animal research website <http://www.animalresearch.msu.edu/overview.html> .

Total for this segment: 1-2 hours

Refresher training (3 hours annually)

The researchers will review newsletters from relevant websites including <http://www.humanresearch.msu.edu/> and <http://grad.msu.edu/researchintegrity/> . Twice a year, the faculty PI will discuss important issues with the students, post/docs and staff.

Refresher Training (3 hours annually)

Data acquisition, management, sharing and ownership reading and PI discussions.

Publication practices and responsible authorship reading.

Research misconduct reading and PI discussions.

**Conflict of Interest reading
Conflict of Interest discussion**

Mentor/Trainee Responsibilities

HRPP certification & re-certification (if needed)

Animal welfare reading (if needed)