

Responsible Conduct of Research
Plant, Soil, and Microbial Sciences (PSM)

Training in the Responsible Conduct of Research is essential in the preparation of future scholars and professionals. An understanding of the issues concerning the conduct of research in an increasingly complex world has become critical in successfully navigating the research landscape. To prepare graduate students for their future scholarly work, PSM has the plan outlined below for providing the foundation of responsible conduct of research. The plan is predicated on the principles that a basic understanding of issues is necessary through didactic training and also through a periodic reinforcement of those principles by way of discussion.

Beginning Fall semester 2016, all PSM graduate students conducting research in laboratories of faculty in Plant, Soil, and Microbial Sciences will receive training according to the following plan.

All Graduate students and postdoc training:

Year 1: Initial Training:

- All new graduate and graduate professional students will complete 4 CITI online modules within the first year of enrollment in their program: **Completion of this requirement will be tracked in SABA.**
 - Introduction to the Responsible Conduct of Research
 - Authorship
 - Plagiarism
 - Research Misconduct

Year 2: Additional Training

- Within the first 2 years of enrollment in their programs, Master's Plan A and doctoral students will complete **three** additional MSU online training modules, to be selected from the following list. **Completion of this requirement will be tracked in SABA.**
 - CITI Collaborative Research
 - CITI Conflicts of Interest
 - CITI Data Management
 - CITI Financial Responsibility
 - CITI Mentoring
 - CITI Peer Review
 - Rigor and Reproducibility Course (still in production)

Discussion-Based Training

- In addition to the above initial training, students must complete a minimum of 6 hours of discussion-based training prior to receiving their degrees. These hours can be completed at any point in their graduate program (required for all Master's -- plan A and plan B -- and doctoral students). **Completion of this requirement will be recorded by the department in GradInfo as "Annual" training.**

Annual refresher training

- Starting in year 3, all doctoral students must complete 3 hours of annual refresher training; this can include discussion-based training and online courses beyond the 7 required in years 1 and 2. **Completion of this requirement will be recorded by the department in GradInfo as “Annual” training.**
 - This training can include specific readings identified *in consultation with the mentor* and online refresher modules. The graduate school offers a large number of resources: <http://grad.msu.edu/researchintegrity/resources/>
 - Also counted as training are face-to face meetings with the mentor and group meetings that discuss RCR issues.

Undergraduate student and technician training:

- These researchers will complete a series of assigned readings or CITI modules to be identified *in consultation with the research mentor*. Examples may include various materials available at the Graduate School web site: (<http://grad.msu.edu/researchintegrity/resources/>).
- Documentation: There is a need to document training activities (including both the specific items that were completed and the amount of time devoted to each item). Each Lab Mentor is responsible for documentation of the training activities.

Questions, comments, and concerns are to be directed to the PSM Responsible Conduct of Research Coordinator (Dr. Brad Day).