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 help prepare Michigan State University graduate students for their future scholarly work, a plan for providing the foundation of responsible conduct has been developed in coordination with the Graduate School, the Vice President for Research and Graduate Studies Office, and college associate deans for graduate education. The plan is predicated on the principles that a basic understanding of issues is necessary through didactic training and a periodic reinforcement of the principles through discussion. It is the belief that this plan will provide a foundation for all graduate students as well as others pursuing a career in research and will offer the basic information to meet most, if not all, federal agency granting requirements.

All graduate professional, master's and doctoral students

1) Year 1

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

2) Discussion-Based Training

All graduate and graduate professional 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 the graduate program, including during the first 2 years (e.g., as part of a course), or as part of the ongoing training requirement (for doctoral students). Specifics about the number of hours required, the content, and the timing of this training will be defined in the individual department/program or college plan. *For master's Plan A and PhD students completion of this requirement will be recorded by the department in GradInfo as "Initial" training.*

Master's Plan B students

The additional 6 hours discussion-based training for Master's plan B students will be fulfilled by inviting them to participate in selected lectures, class discussion, demonstration, or other instructional sessions of PKG 860 (Research Methods) that will be presented as webinars. The classes will be live meetings transmitted over the Web and attended simultaneously by both on-campus and online students. The webinar will be interactive so that the students joining online will have the opportunity to ask questions and chat with the instructor. Since the webinar will be recorded and posted on D2L for the students not able to participate at the scheduled time, students can also submit their questions after the webinar through the questions pane in the control panel and see the answers posted later by the instructor.

The discussion-based training will be centered on the following topics:

- Peer review/critical analysis
- Confidentiality
- Mentorship
- Conflict of interest/conflict of commitment
- Data retention/management
- Regulatory compliance

Master's Plan A and Doctoral students

Take PKG 860-Research Methods

Master's plan A and doctoral students

In addition to 1 and 2 above, master's plan A and doctoral students will complete:

3) Year 2

Within the first 2 years of enrollment in their program, master's plan A and doctoral students will complete 3 additional MSU online training modules, to be selected from the following list. Specific requirements for course selection may be defined in the individual department/program or college plan. *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
- IACUC Tutorial for Animal Care Training (in http://Train.ORA.msu.edu)
- Human Research Protection/ IRB Certification (in http://Train.ORA.msu.edu)
- Rigor and Reproducibility Course (in production)

In addition to 1, 2 and 3 above, doctoral students will complete:

4) 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 basic training. Specifics about the number of hours required, the content, and the timing of this training will be defined in the individual department/program or college plan. *Completion of this requirement will be recorded by the department in GradInfo as "Annual" training.*

Notes:

- Students who are supported by NSF, NIH, or USDA grants may be required to complete additional specific training; they must meet the timeline and content requirements of training for that grant.

- Students engaged in research involving human subjects or animal use must complete the Michigan State University training modules for those subjects before submitting IRB or IACUC approvals. These modules may be completed as part of the training requirements below, or in addition to them, depending on the department/program or college plan.