Department of Geological Sciences

Required Training in Responsible Conduct of Research (RCR)

All students (graduate and undergraduate), postdoctoral fellows, and technicians conducting research in laboratories of the Department of Geological Sciences will receive training in the following areas:

1. Conflict of Interest and Commitment
2. Data Acquisition, Management, Sharing and Ownership
3. Research Misconduct
4. Publication Practices and Responsible Authorship
5. Mentor / Trainee Responsibilities
6. Peer Review
7. Human Subjects (where required)
8. Animal Welfare (where required)

Required initial training is ~5 hours.

During the initial training, the following issues will be addressed:

- Authorship guidelines
- Plagiarism
- Research Misconduct
- Questionable Research Practices
- Data Acquisition, Management, Sharing and Ownership
- Mentor / Trainee Responsibilities

1. Graduate student and postdoc training: These researchers will be required to attend the Graduate School workshops on Responsible Conduct of Research (http://grad.msu.edu/rcr/) and/or online modules from https://www.citiprogram.org. For individuals involved in human subjects research, the MSU tutorial for Human Research Protection Program (HRPP, also known as CITI for Collaborative Institutional Training Initiative; http://www.humanresearch.msu.edu/) is required. (~2 hours)

2. Undergraduate student and technician training: These researchers will complete a series of assigned readings 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/), MSU Authorship Guidelines (http://rio.msu.edu/authorshipguidelines.htm), and a document on Research Data: Management, Control, and Access (http://rio.msu.edu/research_data.htm). Additional online resources will be incorporated at the Grad School site over time.

3. On-line modules: Training in part may be accomplished by completion of a set of online modules (http://grad.msu.edu/researchintegrity/Epigeum.aspx). Using these online modules can only account for up to 1 hour of RCR training and needs to be worked out with your advisor.

4. Documentation: The Graduate School maintains a list of workshop participants at a Research Training Tracking System (RTTS) website that was developed by Engineering. Those not participating in the Workshop series will need to document their activities (including both the specific items that were completed and the amount of time devoted to each item) at this web site (https://www.egr.msu.edu/secureresearchcourses/).
**Required annual refresher training is ~3 hours**

1. Researcher training:
   - Annual refresher training that totals at least 3 hours per year must be completed.
   - This training can include specific readings identified in consultation with the mentor such as those provided at various MSU web sites:
     - [http://grad.msu.edu/researchintegrity/resources/](http://grad.msu.edu/researchintegrity/resources/)
     - [http://rio.msu.edu/authorshipguidelines.htm](http://rio.msu.edu/authorshipguidelines.htm)
     - [http://rio.msu.edu/research_data.htm](http://rio.msu.edu/research_data.htm)
   - Other training options can include Online Refresher Modules being developed by the Graduate School of through CITI.
   - Face-to-face meetings with the mentor and group meetings that discuss RCR issues also count, but you need to document these.

2. Documentation: All researchers must use the Research Training Tracking System ([https://www.egr.msu.edu/secureresearchcourses/](https://www.egr.msu.edu/secureresearchcourses/)) to document the training experiences (both the activity and the amount of time). Each researcher is responsible for maintaining this information, with validation being the responsibility of the Department Supervisors.

Questions, comments, and concerns are to be directed to the GLG Responsible Conduct of Research Coordinator (Dr. Long for the 2015-2016 year).