

## Physical Science Responsible Conduct of Research

The following modules are required for completion of the Physical Sciences RCR course:

- WVU – Introduction to the Responsible Conduct of Research
- Research Misconduct
- Data Acquisition, Management, Sharing and Ownership
- Publication Practices and Responsible Authorship
- Peer Review
- Mentor and Trainee Responsibilities
- Conflicts of Interest and Commitment
- Collaborative Research
- The CITI RCR Course Completion Page

Each module in this course includes several videos discussing each of these topics, and also includes several optional case studies. We would like to recommend that you complete any optional modules in this course so you can enhance your understanding of the topics being paid attention.

When you begin the course, you will be required to read the **Integrity Assurance Statement**, and then proceed to the **Introduction to the Responsible Conduct of Research** module. The introductory module contains information on WVU policies, professional self-regulation, government regulations, institutional policies, and personal responsibility.

The **Research Misconduct** module contains information such as a definition of research misconduct, why people commit research misconduct, policies and procedures that address research misconduct, and guidelines for reporting allegations of research misconduct.

The **Data Acquisition, Management, Sharing and Ownership** module gives you information about legal regulatory concepts, what data to collect and when, how data should be collected, confidentiality, availability, and integrity of data, disposal of data, identification of analysis methods, publication and reporting, ownership issues, and rights and obligations to share.

The **Publication Practices and Responsible Authorship** module covers such topics as deception, the scientific corpus, authorship, information on the International Committee of Medical Journal Editors, the order of authors, redundant publication and self-plagiarism, fragmentation, and how to make an acknowledgement.

The **Peer Review** module contains information such as the role of peer review, potential problems in the peer review system, and opening up the process of peer review.

The **Mentor and Trainee Responsibilities** module covers the significance of the mentor-trainee relationship, roles and responsibilities, dealing with problems in the mentor-trainee relationship, award/rewards, the ethics of mentoring, boundaries, and the responsibility to mentor minorities and women.

The **Conflict of Interest and Commitment** module contains information such as why you should care about conflicts of interest, conflicts of interest at the individual level, managing conflicts of interest at the individual level, conflicts of interest at the Institutional Review Board (IRB) level, and conflicts of interest at the institutional level.

Finally, the **Collaborative Research** module contains information such as the trend toward more collaborative research, what collaborative research is, what some of the potential problems with collaborative research are, concluding or continuing the collaboration, ways collaborations can be enhanced, and what the institutional role is in the collaborative process.