

Marquette University
Responsible and Ethical Conduct of Research Plan

Effective January 4, 2010, the [National Science Foundation](#) began implementing Section 7009 of the America Competes Act (42 U.S.C. 1862o-1). This regulation requires that each institution that applies for funding from NSF has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research (RECR) for undergraduate students, graduate students, and postdoctoral researchers participating in the proposed research project. The regulation was updated in 2023 to include faculty and senior personnel.

The National Institutes of Health (NIH) updated its requirement for instruction in the RECR in NIH notice number [NOT-OD-10-019](#), dated November 24, 2009 and again in [NOT-OD-22-055](#), dated February 17, 2022. NIH requires that all trainees, fellows, participants, and scholars receiving support through any NIH training, career development award (individual or institutional), research education grant, and dissertation research grant must receive instruction in responsible and ethical conduct of research. This policy took effect with all new and renewal applications submitted on or after January 25, 2010, and for all continuation (Type 5) applications with deadlines on or after January 1, 2011. This Notice applies to the following programs: D43, D71, F05, F30, F31, F32, F33, F34, F37, F38, K01, K02, K05, K07, K08, K12, K18, K22, K23, K24, K25, K26, K30, K99/R00, KL1, KL2, R25, R36, T15, T32, T34, T35, T36, T37, T90/R90, TL1, TU2, and U2R. This policy also applies to any other NIH-funded programs supporting research training, career development, or research education that require instruction in responsible and ethical conduct of research as stated in the relevant funding opportunity announcements.

The Office of the Vice President for Research and Innovation at Marquette University, to meet these requirements and any other such requirements mandated by other sponsors, has developed an implementation plan. The Dean of the Graduate School is the Responsible and Ethical Conduct of Research Coordinator, and the Vice President for Research and Innovation is the Research Integrity Officer. The two units have worked together to develop an implementation plan which is in compliance with both sets of regulations referenced above. Areas to be covered in the plan include:

- Data Acquisition and Management
- Secure and Ethical Data Use
- Mentor-Trainee Relationships
- Publication Practices and Authorship
- Peer Review Practices
- Collaborative Research, including International Collaborations
- Protection of Human Subjects
- Research Involving Animals
- Conflict of Interest and Commitment
- Ethical Decision Making in Research
- Safe Research Environments
- Research Misconduct

Although these are the main subject matter for the modules, it is anticipated that the following topics be interwoven into the modules: Plagiarism; Intellectual Property; Lab Management; Financial and Personnel Management; Ethical Deliberation and Training; and Whistleblowing.

RECR content will be delivered via a hybrid of on-line and face-to-face sessions. Participants will access content via the Collaborative Institutional Training Initiative (Citi) Responsibility Conduct of Research Basic Course or Refresher Course online modules. They will demonstrate content mastery by successfully completing quizzes associated with each of the abovementioned topics (approximate completion time 4-5 hours). Participants will also be required to attend three 1.5 hour (4.5 hours total) workshops consisting of case study analysis and discussion. To prepare for each face-to-face workshop, participants will access relevant cases and discussion questions through the university's course management system. The online modules will be available on-demand and the face-to-face workshop series will be offered multiple times per year. Differentiated curriculum is available for students and postdoctoral fellows/faculty/senior personnel who are required to receive RECR training.

An overview of each of the topics in the Citi RCR Courses is available in the [Citi RCR Course Catalog](#).

Students participating in a National Science Foundation-supported Research Experiences for Undergraduates (REU) Site program will typically complete RECR training as a part of the REU Site programming. The RECR curriculum developed and delivered by the Graduate School is the only curriculum recognized by Marquette as being compliant with federal and other grantor guidelines for students. Undergraduate/Graduate training programs can supplement with additional materials/training as they see fit once the base RECR curriculum is delivered by the Graduate School. The RECR training delivered by the Office of Research and Innovation is the only curriculum recognized by Marquette as being compliant with federal and other grantor guidelines for postdoctoral fellows, faculty and senior personnel.

When an award is received, PIs must ensure that any grant-funded students, postdoctoral fellows, faculty, senior personnel or others as identified by NSF, NIH or any other sponsor with a mandate complete the institutional RECR training. Note that these individuals do not need to complete the training before they can begin work but must complete training during their tenure on the award. Instruction must be taken at least once during each career stage (e.g., a graduate student must take the RECR training as a graduate student, even though they may have had RECR training as an undergraduate). Further, RECR training must be completed at a frequency of no less than once every four years.

The RECR requirement also pertains to all subawardees. A plan must be in place to ensure that identified individuals at other universities or entities either comply with their own compliant program and provide proof of completion or participate in Marquette's RECR training program.

While this requirement pertains only to the personnel on NSF, NIH and select other sponsors as identified above, other individuals who participate in research are welcome to participate in this training.

This plan is subject to change as federal requirements change and as the university progresses along the plan of compliance.