



Responsible Conduct of Research Training Implementation Plan

General Information

Responsible conduct in research (RCR) training is required for certain federally funded research activities. The National Institutes of Health defines the responsible conduct of research as the practice of scientific investigation with integrity. It involves the awareness and application of established professional norms and ethical principles in the performance of all activities related to scientific research. The training includes (but is not limited to) topics such as authorship, collaborative research, conflicts of interest, data management, mentoring, peer review, plagiarism, research involving human subjects, research misconduct, using animal subjects in research, export controls and national security, and research ethics and society.

National Science Foundation

All National Science Foundation (NSF) applications and awards require that each institution receiving funds has a plan, "to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers (postdocs) who will be supported by NSF to conduct research." Institutions must be able to verify that students and postdoctoral researchers who are participating or receiving either salary support or stipends for NSF funded research have undergone Responsible Conduct of Research (RCR) training.

Note: The NSF requirement does not apply to awards resulting from conference, symposium, workshop, or travel proposals.

Principal Investigators (PIs) are responsible not only for overseeing and mentoring their students and postdocs in the responsible and ethical conduct of research, but also for ensuring that all undergraduates, graduate students, and postdocs participating in or supported by their NSF awards have successfully completed the online RCR course prior to commencing work on the project. To support and ensure compliance with this requirement, the Office of Institutional Compliance (OIC) has a subscription with the Collaborative Institutional Training Initiative (CITI) which includes online RCR training.

NSF RCR Training Requirements

The following processes outline the UMass Lowell plan to meet the NSF requirements applicable to PIs with NSF awards:

1. OIC will be notified of the NSF award by ORA and reach out to the faculty to remind them of the RCR training requirement for all undergraduate and graduate students and postdoctoral researchers participating in the activity. PIs are responsible to inform all students and postdoctoral researchers participating in the NSF funded activity of the RCR training requirement. The CITI website (www.citiprogram.org) includes modules to complete the RCR training requirement. Training certifications are valid for 3 years from the date of completion.
2. The training should be completed prior to commencing work on the project and the PI should attach the RCR training certificate to the Personnel Action Form (PAF) to initiate the hire.
3. The PAF, is sent to the ORA Financial Administrators to approve the hire and payroll charges to the award and the training certification must be attached. If the certification is not attached, the PAF will be declined and returned to the PI. Once the PAF is complete and approved by the Financial Administrators, the PAF and attached certification is forwarded to Human Resources to retain.
4. PIs are also responsible to retain copies of the RCR training certifications for record keeping and NSF audit purposes.

5. OIC may conduct periodic audits to ensure compliance with the training requirement.
6. PIs should retain certifications for all hires supported by NSF awards. If a student is being re-hired on a different award, the training certificate will need to be attached to the new PAF. It is recommended that PIs use the following file naming protocol to easily find previous RCR training certifications: LastName,FirstInitial. CITI RCR.mo/da/year (Doe,J. CITI RCR 9.30.17).

National Institutes of Health RCR Training Requirements

The National Institutes of Health (NIH) requires trainees, fellows, participants, and scholars receiving support through NIH training career development awards (individual or institutional), research education grants, and dissertation research grants to receive instruction in responsible conduct of research. The policy applies to all new and renewal applications and for all continuation (Type 5) applications. The policy also applies to any other NIH-funded programs or other grant programs with a training component that requires instruction in responsible conduct of research as noted in the Funding Opportunity Announcement.

The NIH RCR training must be incorporated into formal instruction. Subject matter recommended includes conflict of interest; policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices; mentor/mentee responsibilities and relationships; collaborative research including collaborations with industry; peer review; data acquisition and laboratory tools; management, sharing and ownership; research misconduct and policies for handling misconduct; responsible authorship and publication; the scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research. Contact OIC for assistance if you have questions about subject matter.

Faculty are highly encouraged to contribute to both formal and informal instruction in RCR as discussion leaders, speakers, lecturers, and/or course directors. Instruction should involve substantive contact hours between the trainees/fellows/scholars/participants and the participating faculty. Acceptable programs generally involve at least eight contact hours. Frequency of training should be at least once during each career stage and no less than once every four years. For some short-term programs (T35 and R25), online training may be acceptable. NIH applications must include a plan for instruction in RCR and if not included, applications will be considered incomplete and review delayed or not completed.

For more details about the NIH RCR requirements, go to https://grants.nih.gov/policy/research_integrity/index.htm and

<https://oir.nih.gov/sourcebook/ethical-conduct/responsible-conduct-research-training>

Note: RCR training applies to the following types of NIH awards: 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 conduct of research as stated in the relevant funding opportunity announcements.

National Institute of Food and Agriculture RCR Training Requirements

Awards from the National Institute of Food and Agriculture (NIFA), an agency of the United States Department of Agriculture, also require RCR training and the online CITI program is acceptable to meet this requirement. **All** personnel supported under the award must complete the training, including PIs. Award recipients shall, upon request, make available to NIFA the policies, procedures, and certification of the training completion. By accepting a NIFA award, the grantee assures that program directors, faculty, undergraduate students, graduate students, postdoctoral researchers, and any staff participating in the research project receive appropriate training and oversight in the responsible and ethical conduct of research and that documentation of such training will be maintained. The NIFA RCR training certification procedures at UMass Lowell shall follow the same plan as outlined above for the NSF RCR training requirements.

Non-Compliance

As an institution, UMass Lowell is committed to and shares responsibility for ensuring compliance with the RCR training requirements. If the NSF/NIH/NIFA and UMass Lowell requirement for the RCR training is not met, OIC and ORA, under the authorization of the Vice Chancellor for Research and Innovation, will initiate the following actions:

1. OIC will provide email notification to the PI that they are not in compliance with the NSF/NIH/NIFA RCR training requirement and request that they respond and indicate the corrective action to be taken within 7 days of the date of the email. This notification will include the Associate Vice Chancellor for Research Administration & Institutional Compliance, the College Dean, Department Chair, and ORA Director.
2. Should a response about corrective action not be completed within the 7-day time period, OIC will inform the administration that the employee(s) (including students) will need to cease being paid from the NSF/NIH/NIFA funded award and any unobligated time charged while non-compliant should be covered by another funding source. Until the time that the compliance requirement is met, the employee(s) may not receive funding from the award. Responsibility for identifying and providing alternative funding will be that of the PI and the Department Chair.
3. Repeated incidents of noncompliance with the RCR training requirements within a project period or across projects may result in a fine or other sanctions as determined by the Vice Chancellor for Research & Innovation and the Associate Vice Chancellor for Research Administration & Institutional Compliance.

If you have any questions on the RCR requirements or CITI training, please contact the Director of Institutional Compliance or the ORA Grant and Contract Administrator for your College.