

# Responsible Conduct of Research Training

<p><b>Approved By:</b> Northeastern State University Cabinet</p> <p><b>Responsible Official:</b> Research and Sponsored Programs (918) 444-2243 <a href="mailto:schoonok@nsuok.edu">schoonok@nsuok.edu</a></p>	<p><b>History:</b> Adopted – July 10, 2012 Revised – April 2, 2019</p> <p><b>Related Policies:</b></p> <p><b>Additional References:</b> <a href="#">IACUC</a></p> <p><b>Forms:</b></p>
--	--

## POLICY

### SPECIAL WORDING

Institutional Animal Care Use Committee - IACUC

Institutional Review Board - IRB

National Institutes of Health - NIH

National Science Foundation – NSF

Research Integrity Officer - RIO

Research and Sponsored Programs - RASP

Responsible Conduct of Research – RCR

### BACKGROUND

The America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education and Science (COMPETES) Act was signed into law in August 2007. Section 7009 requires that each institution that applies for financial assistance from the National Science Foundation (NSF) for science and engineering research or education must outline in its grant proposal a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, and postdoctoral researchers participating in any capacity within the proposed research project.

In 2009, the National Institutes of Health (NIH) released Notice Number NOT-OD-10-019 which updated their requirement for instruction in the responsible conduct of research. The updated NIH policy 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 the Responsible Conduct of Research (RCR) Training. These individuals are referred to collectively as “RCR Trainees” below.

# Responsible Conduct of Research Training

## BASIC PRINCIPLES

- Each institution must have a plan in place to provide appropriate training and oversight that complies with NIH and NSF policies regarding the provision of RCR training.
- The plan is not required to be included in each proposal; but is subject to NIH and NSF review upon request.
- One or more persons must oversee RCR training compliance.
- There must be written verification that each RCR trainee has completed the training.
- Training must include substantive contact hours with RCR trainees' faculty mentor(s).
- Instruction should include face-to-face discussions by course participants and faculty.
- RCR trainees must be recertified as they progress through each academic level of education – bachelors, masters, and doctoral levels.
- Faculty researchers/mentors are strongly encouraged to participate in the RCR training.
- There must be a curriculum and training plan in place prior to submission of NSF or NIH grant proposals.

## APPLICABILITY

Proposals submitted to NSF on or after January 4, 2010

Proposals submitted to NIH on or after January 25, 2010 and for continuation applications submitted on or after January 1, 2011

## NORTHEASTERN STATE UNIVERSITY PLAN

Northeastern State University (NSU) will meet the stated requirement by providing Responsible Conduct of Research Training certified as sufficient by NSF and NIH augmented through face-to-face ethical instruction on relevant topics specific to the RCR trainees' research from their faculty mentor during the course of the respective training or program.

Northeastern State University (NSU) trainees, fellows, undergraduate students, graduate students, and postdoctoral researchers participating in any capacity within a proposed NIH or NSF research or education project are to be considered as RCR trainees regarding training and oversight in the responsible and ethical conduct of research.

Recommended Topics for each RCR Training Course include:

- *Introduction to Responsible Conduct of Research*
- *Research Misconduct:* (fabrication or falsification of data including image manipulation, and/or plagiarism). The meaning of research misconduct and the regulations, policies, and guidelines that govern research misconduct in federally funded institutions, including fabrication, falsification, and plagiarism; error vs. intentional misconduct; institutional misconduct policies; identifying misconduct; procedures for reporting misconduct; protection of whistleblowers; and outcomes of investigations, including institutional and federal actions.

## Responsible Conduct of Research Training

- *Data Acquisition, Management, Sharing, and Ownership:* Accepted practices for acquiring and maintaining research data. Proper methods for record keeping and electronic data collection and storage in scientific research including defining what constitutes data, keeping data notebooks or electronic files, data privacy and confidentiality, data selection, retention, sharing, ownership, and analysis, and; data as legal documents and intellectual property, including copyright laws.
- *Publication Practices and Responsible Authorship:* The purpose and importance of scientific publication and the responsibilities of the authors including collaborative work and assigning appropriate credit, acknowledgments, appropriate citations, repetitive publications, fragmentary publication, sufficient description of methods, corrections and retractions, conventions for deciding upon authors, author responsibilities, and the pressure to publish.
- *Peer Review:* The purpose of peer review is determining merit for research funding and publications including the definition of peer review, impartiality, how peer review works, editorial boards and ad hoc reviewers, responsibilities of the reviewers, privileged information, and confidentiality.
- *Mentor and Trainee Responsibilities:* The responsibilities of mentors and trainees in pre-doctoral and postdoctoral research programs including the role of a mentor, responsibilities of a mentor, conflicts between mentor and trainee, collaboration and competition, selection of a mentor, and abusing the mentor/trainee relationship.
- *Animal Welfare:* Issues important to conducting research involving animals including the definition of research involving animals, ethical principles for conducting research on animals, federal regulations governing animal research, institutional animal care and use committees, and treatment of animals. For NSU, the role of the Institutional Animal Care Use Committee (IACUC) is to ensure the ethical use and sensitive care of animals utilized in research and teaching. Information regarding this can be found at: [https://academics.nsuok.edu/sciencehealth/InstitutionalAnimalCareUseCommittee\(IACUC\).aspx](https://academics.nsuok.edu/sciencehealth/InstitutionalAnimalCareUseCommittee(IACUC).aspx)
- *Conflicts of Interest and Commitment:* The definition of conflicts of interest and how to handle conflicts of interest. Types of conflicts encountered by researchers and institutions including conflicts associated with collaborators, publication, financial conflicts, obligations to other constituencies, and other types of conflicts.
- *Collaborative Research:* Research collaborations and issues that may arise from such collaborations including setting ground rules early in the collaboration, avoiding authorship disputes, and the sharing of materials and information with internal and external collaborating scientists.
- *Human Subjects:* Issues important in conducting research involving human subjects will be presented including the definition of human subjects research, ethical principles for conducting human subjects research, informed consent, confidentiality and privacy of data and patient records, risks and benefits, preparation of a research protocol, adherence to study protocol, proper conduct of the study, and special protections for protected or “at risk” populations, e.g., children, convicts, minorities, and the elderly. For NSU, the procedures of the Institutional Review Board (IRB) will be detailed.

# Responsible Conduct of Research Training

## RESPONSIBILITIES AND PROCESS

The NSU Research Integrity Officer (RIO) and the Director of the Office of Research and Sponsored Programs (RASP) will work collaboratively in the development, implementation, and documentation of the RCR training. The formal curriculum of RCR training will be provided through successful completion of the Responsible Conduct of Research training online instruction augmented through face-to-face ethical instruction by faculty mentors. Regardless of curriculum delivery, significant and relevant mentor content and supervision is required involving substantive contact hours between the trainees and faculty mentors. RASP is responsible for the general dissemination and administration of the Responsible Conduct of Research Training policy. RASP will include information about the RCR training requirement with each relevant proposal.

The Office of Grants and Contracts is responsible for providing RASP with the name of each trainee working on a federally funded research project, as well as applicable information to be included on the RCR Training Certification form. RASP will notify the relevant Principal Investigator/Project Director (PI/PD) and the appropriate college(s) or department(s) of the RCR training requirements and the names of the trainees needing the required RCR training. The college(s)/department(s) and relevant PI/PD, in conjunction with RASP, will ensure that RCR training is provided to the applicable trainees, including substantive face-to-face instruction by faculty mentors.

Each RCR trainee must satisfactorily complete RCR training within thirty days of employment on the federally-funded research project in which he or she is employed. In the event that a RCR trainee fails to successfully complete the RCR training in the time specified, the trainee will be suspended from employment and the Research Integrity Officer (RIO) contacted.

Documentation of a trainee's successful completion of RCR training will be established with the completion of the Responsible Conduct of Research Training Certification Form and signatures obtained from the respective faculty mentor and RASP.

For further information regarding the requirement for instruction in the Responsible Conduct of Research, please see <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html> and <https://nsf.gov/bfa/dias/policy/rcr.jsp>