

Institutional Policy to Provide Responsible Conduct of Research (RCR) Training

I. BACKGROUND

Northern Arizona University (NAU) adheres to the highest ethical standards in the conduct of research, scholarly and creative activities and is committed to academic integrity. The University's acceptance of public and federal funds for research, instruction, and other activities obligates the University to comply with responsible conduct of research (RCR) training requirements (federal) for faculty, students, post-doctoral scholars, research and other staff on projects supported by external funds.

II. PURPOSE

This policy is intended to insure that all NAU personnel engaged in research, scholarly or creative activities are adequately trained in the basic principles of ethics in research. Additionally, this policy assists NAU in meeting the RCR training and compliance requirements of the National Science Foundation (NSF)-The America COMPETES Act (Creating Opportunities to Meaningfully Promote Excellence in Technology, Education and Science); 42 U.S.C 18620-1, Section 7009, and the National Institutes of Health (NIH) policy on the instruction of the RCR (NOT-OD-10-019; "Update on the Requirement for Instruction in the Responsible Conduct of Research").

III. APPLICABILITY

While this policy applies specifically to "undergraduate and graduate students, post-doctoral scholars, trainees, associate and staff engaged in research," all NAU individuals (faculty, research staff, students, volunteers, extended campus research staff and research administrators) conducting or proposing to conduct research, scholarly or creative activities through the University are expected to enroll and complete NAU RCR training requirements. At NAU, beginning January 4, 2010, this policy applies to all academic disciplines and colleges, including The College of Arts and Letters, The Franke College of Business, The College of

Education, The College of Engineering, Forestry & Natural Sciences, The College of Health and Human Services, The College of Social and Behavioral Sciences, and the Cline Library. The responsible and ethical conduct of research is critical for excellence, as well as public trust, in the advancement of knowledge through research and scholarship in all disciplines. Consequently, the National Institutes of Health (NIH), the National Science Foundation (NSF), and the United States Department of Agriculture National Institute of Food and Agriculture (NIFA) consider Responsible Conduct of Research (RCR) education essential in the preparation of future scientists and engineers. Each agency has particular requirements for RCR instruction. This institutional policy outlines the programming in place at Northern Arizona University (NAU) designed to meet those requirements.

IV. NORTHERN ARIZONA UNIVERSITY RCR CREDENTIAL PROGRAM

Northern Arizona University offers credential programs in RCR training designed to meet NIH, NSF, and other federal guidelines. The credential program consists of an initial introductory training and a series of workshop designed to cover the broad range of topics covered under the rubric of RCR. The workshops will be cosponsored by the OVPR, Graduate College, and the Office of Faculty Development.

RCR TOPICS

The RCR topic areas include but are not limited to:

- General Research Ethics
- Research Ethics in International Collaboration
- Publication Practices and Responsible Authorship
- Technology Commercialization and Research
- Animal Subjects Protection**
- HIPAA in Research
- Collaborative Science
- Conflict of Interest
- Data Acquisition, Management, Sharing and Ownership
- Lab Safety**
- Human Subjects Protection**
- Mentor/Trainee Relationships
- Peer Review
- Research Misconduct

***Special Note:* At Northern Arizona University, research with human subjects, animals, and biological, chemical and/or radioactive agents require specific training requirements that are additional to, and are not satisfied by the RCR training described in this Institutional Policy for RCR training.

TRAINING COMPLETION DEADLINE

The credential program must be initiated within 30 days of the post-award date and completed within one calendar year after the post-award date.

TRACKING AND VERIFICATION OF HOURS

Principal Investigators are responsible for ensuring that all students and postdoctoral researchers associated with the relevant award complete the RCR training requirements as described above. Individuals should keep documentation of the RCR training they receive, including all workshops and face-to-face discussions with faculty mentors.

MONITORING COMPLIANCE

Northern Arizona University, through the Office of the Vice President for Research (OVPR), is responsible for certifying that the RCR training plan is in place and verifying credential completion.

NON-COMPLIANCE

Failure to fulfill RCR training requirements in accordance with this policy or restrictions imposed in this policy may subject individuals to sanctions (such as prohibition from participation in research or scholarly activities) and/or to University disciplinary actions under other NAU policies and procedures pertinent to non-compliance with University policies. Noncompliance with the NIH requirements for RCR training may result in the forfeiture of research funds and sanctions against future NIH or other federal agency research funding, in addition to any institutional sanctions pursuant to relevant NAU personnel or other policies.

RESPONSIBILITIES

The University is responsible for appointing a Responsible Official for certifying the existence of a RCR training plan and for providing appropriate RCR administration, training, documentation and oversight of RCR; currently the Assistant Vice President for Regulatory Compliance (David Faguy, david.faguy@nau.edu) is the responsible official for RCR training at NAU.

INVESTIGATOR

It is the responsibility of the PI to ensure that his/her staff and students are trained in accordance with this policy and to facilitate proper documentation of training as required by NAU and/or external agencies. Training must be conducted, and documentation of training must be provided, in a timely manner to facilitate proper certification prior to submission of grant proposals through the Office of Grant and Contract Services.

NIH Requirements

NIH RCR Policy

NIH requires all trainees, fellows, participants, and scholars supported by NIH training grants, career development awards, and dissertation research grants to receive instruction in the responsible conduct of research. For the complete NIH policy, please visit <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>

CONTACT HOURS REQUIRED

Northern Arizona University requires a minimum of nine (9) hours of RCR instruction to earn the NIH RCR completion. However, more hours are encouraged.

INSTRUCTIONAL FORMAT

Substantial hours must be comprised of live instructional formats such as workshops, academic course hours, and face-to-face discussions with faculty mentor(s) and peers. Northern Arizona University encourages NIH-funded scholars, trainees, and fellows to participate in as much live instruction as possible. No more than 3 hours of online instruction in RCR may count toward the RCR Credential.

EARNING THE CREDENTIAL

NAU offers an NIH RCR Credential to acknowledge fulfillment of the NIH requirement. Earning the credential requires a minimum of nine (9) hours of RCR instruction, which may be fulfilled in a variety of ways. On-line training, formal workshops/training sessions, and informal small group discussion all can count as RCR training. Dedicated discussion of RCR in a scheduled class can also count for both students and faculty, although it should be documented in the syllabus or other appropriate material. Up to three (3) hours of RCR instruction led and facilitated by faculty mentors on a more informal basis may count toward the credential. The general guidelines consist of the following:

On Line Training

up to 4 hours

Examples:

- CITI RCR Training Modules
- BB Learn International Research

Formal Workshop on Responsible Research

at least 2 hours

Examples:

- ORC Workshops
- International Research Integrity Workshop (Graduate College)
- Formal seminars or workshops at scientific meetings/conferences (with approval)

Other RCR Training:

up to 3 hours

Examples:

- Small group meetings with RCR discussion (with approval)
- Classroom teaching specifically related to RCR (with approval)

Total Hours for NIH

9 hours

RCR training will be valid for 4 years from the date of completion.

NSF Requirements

NSF RCR POLICY

NSF requires all postdocs and undergraduate and graduate students funded through an NSF grant to receive instruction in the responsible conduct of research. For the complete NSF policy, please visit <http://www.nsf.gov/bfa/dias/policy/rcr.jsp>.

CONTACT HOURS REQUIRED

Northern Arizona University requires a minimum of six (6) hours of RCR instruction to earn the NSF RCR Credential. However, more hours are encouraged.

INSTRUCTIONAL FORMAT

At least 4 hours must be comprised of live instructional formats such as workshops, academic course hours, and face-to-face discussions with faculty mentor(s) and peers. Northern Arizona University encourages NSF-funded students and postdocs to participate in as much live instruction as possible. No more than 2 hours of supplemental online instruction in RCR may count toward the RCR Credential.

EARNING THE CREDENTIAL

Earning the credential requires a minimum of six (6) hours of RCR instruction. The general guidelines consist of the following:

On Line Training

up to 3 hours

Examples:

- CITI RCR Training Modules
- BB Learn International Research

Formal Workshop on Responsible Research

at least 1 hours

Examples:

- ORC Workshops
- International Research Integrity Workshop (Graduate College)
- Formal seminars or workshops at scientific meetings/conferences (with approval)

Other RCR Training:

up to 2 hours

Examples:

- Small group meetings with RCR discussion (with approval)
- Classroom teaching specifically related to RCR (with approval)

Total Hours for NSF

6 hours

RCR training will be valid for 4 years from the date of completion.

NIFA RCR POLICY

NIFA requires that all program directors, faculty, undergraduate students, graduate students, postdoctoral researchers, and any staff participating in a research project funded by NIFA receive RCR training. Documentation of the training is subject to review by NIFA upon request. For the complete policy, please see Article 7 of NIFA's research terms and conditions: http://www.nsf.gov/pubs/policydocs/rtc/agencyspecifics/nifa_213.pdf

EARNING THE CREDENTIAL

The NIFA RCR Credential may be earned by completing the requirements for the NSF RCR Credential outlined above.

V. DEFINITIONS

Research refers to systematic investigation designed and conducted to develop or contribute to the body of knowledge and includes basic and applied research as well as product development. All forms of scholarship and creative activities are included.

Responsible Conduct of Research (RCR) is 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.

Research Misconduct is fabrication, falsification, or plagiarism in proposing, performing, or reviewing research or in reporting research results. It does not include honest error or honest differences in interpretations or judgments of data.

Principal Investigator (PI) or Project Director (PD) is an individual formally designated by the University who is responsible for the administrative and programmatic leadership of the project. PI/PD is an individual (including but not limited to employees and students) acting for or on behalf of the University, who is responsible for the design, conduct, or reporting of sponsored or scholarly activities. Typically this will include the principal investigator (PI), co-principal Investigator (CO-PI) and co-investigators, project director/coordinator and any other person identified as senior or key personnel for the project. Key personnel can also be graduate students, post-doctoral scholars and staff members.

Sponsored Project refers to research, training, or service activity funded by an outside agency (such as NIH, NSF etc.) either through a grant, contract, or other transaction. Responsible University Official is responsible for the University wide research administration.

Institutional Official means the individual within the Institution, or his/her designee, that is responsible for the oversight of RCR program.

VI. Resources

American Association for the Advancement of Science

[Research Integrity Videos](#)

[The AAAS-ORI Select Bibliography and Resources on RCR](#)

NIH

[Bioethics Resources and Training in the Responsible Conduct of Research](#)

[Research Conduct and Ethics Instructional Materials](#)

[Introduction to the Responsible Conduct of Research](#)

American Psychological Society

[Misconduct of Others: Prevention Techniques for Researchers](#)

Nature

[Research Misconduct: Editorial and Three Articles](#)

Land Grant University Research Ethics Education Project

[Open Seminar in Research Ethics](#)

University of Montana

[Online Research Ethics Course](#)

Boston College

[Administrators and the Responsible Conduct of Research](#)

University of California, San Diego

[Basic Research Concepts for New Research Staff](#)

Jan Allen (HHS)

[Research Ethics: A Novel Approach](#)