



# Policy

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Title	<b>Responsible Conduct of Research Training</b>
Policy No.	<b>MURC-003</b>
Effective Date	<b>January 4, 2010</b>
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## Summary

Beginning January 4, 2010, grants funded by the National Science Foundation (NSF) require that each individual paid from the grant complete a training curriculum on the Responsible Conduct of Research (RCR).

Principal investigators, co-investigators, technicians, research staffs, undergraduate students, graduate students, postdoctoral fellows and others who work on NSF-sponsored projects must certify completion of the training requirements described herein. Evidence of completion must be provided prior to the processing of Personnel Action Request (PAR) forms. In no case will PARs be processed for NSF-funded projects without completion of the required training.

Following completion of the initial training requirements, people continuing to work in NSF-sponsored research must complete a bi-annual (every two years from original completion date) RCR refresher course.

### 1 - Purpose

This policy establishes an educational program that ensures Marshall University's principal investigators and their research staffs are knowledgeable about the responsible and ethical conduct of research and to comply with the National Science Foundation policy on RCR training. This policy also ensures the University's ability to assure compliance with NSF regulations.

### 2 - Scope

This policy applies to principal investigators, co-investigators, technicians, research staffs, undergraduate students, graduate students, postdoctoral fellows and others who work on projects supported by the NSF at Marshall University. This policy is in effect for awards received from submissions occurring on or after January 4, 2010.

### 3 - Responsibilities

**Institutional Official** – The Vice President for Research, as the Authorized Organization Representative, has ultimate oversight and responsibility for certifying compliance with this policy.

**Director of the Office of Research Integrity (ORI)** – The Director of the ORI has primary responsibility for program management and ensures orientation, education and training are provided to NSF-supported personnel as appropriate and consistent with this policy.

**Grants Officers** – Marshall University Research Corporation (MURC) grants officers are responsible for communicating to principal investigators the requirements of this policy and ensuring each NSF-supported employee has completed the training requirements before submitting the award for set up in the Banner system.

**Compliance Officers** – MURC compliance officers are responsible for verifying that new personnel added to NSF-supported projects after the initial Banner set-up have met these policy requirements before processing PARs.

**Investigators** – Principal investigators are responsible for completing these training requirements as well as ensuring all personnel supported by the project complete the requirements before gaining access to the funds (for all staff initially supported by the project) or before receiving compensation from the award (for personnel added following Banner set-up). In addition, mentoring is considered a critical tool in encouraging the responsible and ethical conduct of research among undergraduates, graduate students and postdoctoral fellows. Therefore, principal investigators, co-investigators and other key research personnel are encouraged to take an active role in communicating the substance and importance of responsible conduct of research to their staffs.

### 4 - Procedures

#### a - Introduction

All principal investigators, co-investigators, technicians, research staffs, undergraduate students, graduate students, postdoctoral fellows and other persons who work on NSF projects must obtain RCR certification in the following manner before they can be paid from the grant:

An individual is considered certified after successful completion of the Collaborative Institutional Training Initiative (CITI) Responsible Conduct of Research training. A link to CITI's web-based course can be found on the Education/Training page of the ORI website at [www.marshall.edu/murc](http://www.marshall.edu/murc).

Once a course account is established, participants should choose the applicable group (#4 Responsible Conduct of Research or #5 Engineers). The course

contains a Grade Book page that displays required modules and dates of completion. Most modules are followed by a short quiz. A quiz score of 80 percent or higher constitutes a passing score and module completion.

Upon achievement of the required modules, a copy of the CITI Completion Report must be submitted to MURC for documentation in the grant file.

NSF-supported personnel, as identified by the Director of Grants & Contracts, may be required to complete additional CITI RCR modules prior to reviewing or beginning research protocols involving some topics.

### **b - Required CITI Educational Modules**

The following CITI basic course modules must be completed with an overall 80 percent quiz score to fulfill the educational requirements:

*Responsible Conduct of Research:*

- Introduction to the Responsible Conduct of Research
- Research Misconduct
- Data Acquisition and Management
- Responsible Authorship and Publication
- Peer Review
- Responsible Mentoring
- Conflicts of Interest and Commitment
- Collaborative Science
- Responsible Conduct of Research with Human Subjects
- Conducting Research with Laboratory Animals
- The CITI RCR Course Completion Report

*Engineers:*

- Introduction to RCR for Engineers
- Research Misconduct
- Environmental Ethics
- Responsible Authorship in Engineering
- Ethical Issues in Peer Review and Publication in Engineering Research
- Whistle Blowing and the Obligation to Protect the Public
- The Ethics of Mentoring
- Human Subjects Research in Engineering Fields
- Conflicts of Interest in Engineering Research
- The Use of Live Animals in Research
- Ethical Issues in the Management of Data in Engineering Research
- Collaborative Research in Engineering Fields
- Completing the RCR for Engineers Course

While individuals must complete only these required modules within their respective training programs, they are encouraged to complete optional modules to improve their understanding of responsible conduct of research topics.

Every two years (bi-annually), each person who continues in NSF-sponsored research will be required to complete the CITI refresher course.

### **c - Continuing Education Modules**

Completion of continuing education modules will be required on a bi-annual basis; however, course availability extends at any time to anyone desiring to expand or refresh their knowledge.

MURC will inform NSF-supported personnel of the continuing education requirements every 24 months from the date of initial certification. The CITI program will also send e-mail notifications of bi-annual expiration.

## **5 - Enforceability**

Section 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act states:

The Director shall require that each institution that applies for financial assistance from the Foundation for science and engineering research or education describe 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 the proposed research project.

Accordingly, the National Science Foundation added guidelines for compliance with the America COMPETES Act to its Award Administration Guide, effective January 4, 2010. Among the key provisions are:

- Institutional certification [of compliance with Section 7009 of the America COMPETES Act] is required for each proposal.
- While training plans are not required to be included in proposals...they are subject to review, upon request.
- An institution must designate one or more persons to oversee compliance with the RCR training requirement.
- Institutions must verify that undergraduate, graduate and postdoctoral researchers supported by NSF receive training in the responsible and ethical conduct of research.

## **6 - Annual Periodic Evaluation**

The Director of the Office of Research Integrity will meet at least annually with the Director of Grants & Contracts to evaluate current educational requirements and outreach activities.

## **7 - Changes to This Policy**

This policy may be modified at any time to meet the changing nature of RCR training requirements. Such changes may include, but are not limited to, additional agencies requiring RCR training, changes in RCR curriculum and changes to delivery requirements.