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<https://nationalethicscenter.org/resources/948>

Some university plans are somewhat scattered about; in those cases, I compiled the pieces into one PDF file (column 1), but provided several links to the sources (column 2; these links may no longer be live).

<b>Links to plans in this document</b>	<b>Links to originals on the Web</b>
Columbia U	Columbia U
Cornell U	Cornell U – Index Participants & Timeline Access On-line Training Administrative Procedures Regulatory Framework Resources
Harvard U	Harvard U – Requirements Registration RCR course (summary) FAQ RCR course syllabus
Indiana U	Indiana U – IU RCR program CITI
MIT	MIT
Michigan State U	Michigan State U
Northwestern U	Northwestern U Engineering Weinberg College of Arts and Sciences
Ohio State U	Ohio State U
Penn State U	Penn State – RCR Training SARI statement SARI
Purdue U	Purdue U
Stanford U	Stanford U – RCR FAQ
U of Arkansas	U of Arkansas – Policy? Schedule

U of California LA	UCLA – Plan FAQ
U of Chicago	U of Chicago – NSF Certification Biological Sciences Computation Institute Humanities Physical Sciences Social Sciences
U of Colorado	U of Colorado – NSF requirement Classroom training
U of Florida	U of Florida
U of Illinois-Chicago	U of Illinois-Chicago
U of Illinois-Urbana-Champaign	3 of the 4 compiled documents were sent to me via e-mail; the exception is Academic Handbook, Chapter 5, section on Responsible Professional Conduct: Guidelines for Teaching, Research, and Service
U of Iowa	U of Iowa
U of Michigan	U of Michigan
U of Minnesota	U of Minnesota
U of Nebraska	U of Nebraska
U of North Carolina	U of North Carolina
U of Pennsylvania	U of Pennsylvania
U of Texas	U of Texas
U of Washington	U of Washington
U of Wisconsin	U of Wisconsin

**Revised: June 24, 2011**

## **COLUMBIA UNIVERSITY PLAN FOR FULFILLING NSF RESPONSIBLE CONDUCT OF RESEARCH (RCR) TRAINING REQUIREMENTS**

### **Introduction**

The University receives significant funding from the National Science Foundation to conduct research projects. In accordance with the America COMPETES Act, NSF requires training in the responsible conduct of research for all:

- undergraduates;
- graduate students; and
- postdocs

who receive NSF funds in the form of support from salary and/or stipends to conduct research on NSF grants. The RCR training requirement applies to all awards for proposals submitted, or due, on or after January 4, 2010, to conduct research, which excludes, for example, conference, symposium, workshop, or travel proposals. (Details about the NSF RCR requirements are available here: [http://www.nsf.gov/pubs/policydocs/rcr/faqs\\_mar10.pdf](http://www.nsf.gov/pubs/policydocs/rcr/faqs_mar10.pdf).)

NSF's regulations require institutions, at the time of proposal submission, to "certify that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research." In addition, "institutions are responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received RCR training." This document outlines the University's guidelines for compliance with NSF's requirements.

### **Guidelines**

It is the responsibility of the Principal Investigator to assure that all postdocs, graduate students and undergraduates who receive NSF funds in the form of support from salary and/or stipends to conduct research on NSF grants receive training in the Responsible Conduct of Research. In general, training should be completed within three months of when the individual begins work on the project, or the individual must provide a plan through which training will be completed within a reasonable timeframe (e.g., registering for a course in the coming semester). Where individuals are working on NSF projects for a short time, such as the summer, training should be completed before the individual's work on the project ends.

The Office of Research Compliance and Training (RCT) will coordinate the collection and maintenance of compliance information. Working with Sponsored Projects Administration, RCT will identify individuals who are required to receive training and will track training completions. Reports of non-compliance will be generated and shared with PIs and DAs for follow-up.

## A. Options for fulfilling RCR training requirement

The University offers several options for individuals to receive training in the Responsible Conduct of Research, any of which will satisfy the requirement:

- **Collaborative Institutional Training Initiative (CITI) Training** – CITI is a consortium of research institutions that has created web-based training in the Responsible Conduct of Research, among other areas. CITI is used by over 1,500 institutions worldwide for training in RCR, human subjects protection and other research-related compliance areas. Access and tracking is through Rascal and administered by the Office of Research Compliance and Training. Learners are required to complete up to nine modules:
  - Research misconduct
  - Conflict of interest
  - Publication practices and responsible authorship
  - Data acquisition, management, sharing, and ownership
  - Mentor/trainee responsibilities
  - Peer review
  - Collaborative science
  - Human subjects
  - Animal subjects (biomedical researchers only)

Much of the content in the CITI RCR course is taken from content developed at Columbia and other institutions under contracts with the Department of Health and Human Services' Office of Research Integrity.

The CITI course can be accessed through Rascal at <https://www.rascal.columbia.edu/login/tc0094/>. All modules need not be completed in one sitting.

- **Established Columbia Courses:**
  - Morningside - *Research Ethics*, Robert Klitzman (Permission of instructor required.)
    - Course Website: <http://ce.columbia.edu/Bioethics/Course-Descriptions#k4450>
  - CUMC - *Responsible Conduct of Research and Related Policy Issues*, Richard Kessin and Jaime Rubin (required for all CUMC graduate students except for the students in the Department of Neurology; open to postdocs on request and subject to availability)
    - Course website: <http://www.researchethics.cumc.columbia.edu/>
- **School/Departmental Offerings** – Schools or departments may train individuals through previously established or newly created training options. Such offerings should be reviewed by the Office of Research Compliance and Training to assure that they are generally comparable to other commonly accepted RCR trainings. For example, GSAS

offers a lunch-time seminar series in Responsible Conduct of Research that may satisfy the NSF requirement. Information:

<http://www.columbia.edu/cu/gsas/sub/project/research/main/index.html>

## **B. Requirements for Individuals Who Previously Completed RCR Training**

- Individuals who have previously completed one of the Columbia RCR courses (Morningside or CUMC) will not be required to repeat it for purposes of fulfilling the NSF requirements.
- Individuals who have previously completed CITI RCR training at another institution will be credited for the modules they have taken. However, since CITI allows institutions to select from among different RCR offerings, individuals must complete any Columbia-required modules that have not been previously completed.
- Individuals who have previously completed RCR training at another institution (other than CITI RCR training) will be required to complete one of the RCR training options at Columbia.

## **C. Monitoring Process**

- a. Sponsored Projects Administration will provide RCT with regular reports identifying students and postdocs who receive either salary or stipend support for work on NSF research projects. GSAS will provide an annual list of NSF Graduate Research Fellows.
- b. RCT will send affected individuals and their PIs email notification of the individual's obligation to complete training within three months of receipt of first email.
- c. Completion data for CITI and University courses will be collected regularly. Individuals who meet the training requirement through other methods will be required to submit evidence of compliance (e.g., course transcripts, certification from department).
- d. Reminders will be sent monthly to individuals and PIs for three months. Individuals who are noncompliant after three months will have their information forwarded to the Associate Vice President for Research Compliance for enhanced follow up.
- e. Failure to complete the training could result in the individual student or postdoc's ineligibility to be funded by NSF projects.
- f. The monitoring process is described in greater detail in the attached Appendix A.

## **Questions**

Questions regarding the NSF RCR requirement may be directed to the Office of Research Compliance and Training, 212-851-2897, or [research-compliance@columbia.edu](mailto:research-compliance@columbia.edu). Information is also available at

[http://www.columbia.edu/cu/compliance/docs/training/Responsible\\_Conduct\\_of\\_Research](http://www.columbia.edu/cu/compliance/docs/training/Responsible_Conduct_of_Research).

## **Appendix**

Appendix A: *Tracking Process* is available upon request: [research-compliance@columbia.edu](mailto:research-compliance@columbia.edu).

[Skip to main content](#)

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  - [Research Centers](#)
- 

## Responsible Conduct for Research

---

- [RCR Home](#)
  - [Participants & Timeline](#)
  - [Access On-line Training](#)
  - [Administrative Procedures](#)
  - [Frequently Asked Questions](#)
  - [Regulatory Background](#)
  - [Resources](#)
- 

The integrity of research conducted at Cornell University is of the utmost importance to the institution as well as to our research sponsors. Cornell is committed to promoting and supporting the ethical and responsible conduct of research across all disciplines so that our researchers are provided an environment in which they may continue to conduct preeminent research, maintain the public's trust in the excellence of our research, and prepare current and future generations to similarly contribute to research discoveries that will address and advance national and global needs.

### [Frequently Asked Questions](#)

### [RCR Informational Handout from March 2 Meeting](#)

### [Mandatory On-line Instruction: Participants & Timeline](#)

### [Access On-line Training](#)

### [Full Version of the Interactive Movie, The Lab, Now Available Online](#)



The long awaited release of "[The Lab: Avoiding Research Misconduct](#)" is now available for viewing on the ORI web site. The video simulation allows users to assume the role of a graduate student, post-doc, research administrator, or PI and make decisions that affect the integrity of research.

[The Lab: Facilitator's Guide](#) [PDF]

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  - [Research Centers](#)
- 

## Responsible Conduct for Research

---

- [RCR Home](#)
  - [Participants & Timeline](#)
  - [Access On-line Training](#)
  - [Administrative Procedures](#)
  - [Regulatory Background](#)
  - [Resources](#)
- 

### Mandatory On-line Instruction: Participants, timeline

All **students, undergraduate and graduate, and postdoctoral researchers** appointed to a **National Science Foundation (NSF) award** or to a **National Institutes of Health (NIH) training, career development award (individual or institutional), research education grant, or dissertation research grant** are required to complete eight modules of on-line RCR foundational training. Instructions are available by clicking the button below.

Students and postdoctoral researchers must complete the on-line training irrespective of the duration of their appointment and even if they are summer students. This includes REU students, graduate fellows and training grant recipients who may have been paid through the Bursar and NRSA postdoc recipients who have been paid through accounts payable.

This on-line training is required in addition to any other formal training or mentoring required by a project.

Individuals must complete all eight on-line modules with a passing score of 80 or above. If an individual does not successfully complete the training by the due date, the NSF or NIH funding source cannot be available for their financial support and the individual's department or college will be required to determine an alternative funding source. In order to avoid any appointment complications, it is important that an individual complete the training by the deadline.

Individuals appointed on or after December 1, 2010, must complete RCR on-line instruction within one month of an individual's appointment to a NSF or applicable NIH funded project, or prior to the end date of their appointment, whichever is earlier.

Individuals appointed on NSF and applicable NIH awards between January 4, 2010 and November 30, 2010 must complete on-line instruction by December 31, 2010.

Completion of this training will meet the RCR formal training requirement recently set forth by the NSF for all students, undergraduate and graduate, and postdoctoral researchers supported on NSF projects. The training will serve as one component of NIH formal RCR training required for all individuals supported by applicable NIH projects. The on-line foundational instruction covers interdisciplinary and program specific topics relevant to the responsible conduct of research, and will enhance the knowledge and training provided by faculty and research mentors during the ongoing educational process that occurs formally and informally through classes and the educational and research process as well as that gained by students and researchers through self-initiated professional development and learning regarding professional conduct, governmental regulations, and institutional policies.

For NIH awards: Although this online training will provide significant RCR content, NIH policy specifically states that "on-line instruction may be a component of instruction in responsible conduct of research but is not sufficient to meet the NIH requirement for such instruction, except in special or unusual circumstances." Therefore, additional instruction as determined by the Principal Investigator (PI) is required. See NIH policy for guidance, link below in resource section.

Other NIH and other agency awards may also require RCR training. PIs and research administrators must read the terms and conditions of all awards and ensure that RCR training is provided as required. The on-line instruction is available to all Cornell students and employees, and is, therefore, a tool that PIs may utilize for meeting award requirements.

Consistent with Cornell's treatment of employment or position based expenses, time spent participating in RCR training is an allowable direct charge to projects as long as charges are allocated consistently with the distribution of the individual's regular compensation.

[Access On-line Training](#)

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- 

## Responsible Conduct for Research

---

- [RCR Home](#)
  - [Participants & Timeline](#)
  - [Access On-line Training](#)
  - [Administrative Procedures](#)
  - [Regulatory Background](#)
  - [Resources](#)
- 

## Access On-line Training

Contact Nicole Albright at [nja35@cornell.edu](mailto:nja35@cornell.edu) if you need assistance accessing the training or have questions.

1. Click on the Login button to access the CITI website.
2. When you login for the first time—since some researchers have direct accounts with CITI (CITI specific user ID and password)—you will be asked if you would like to merge your accounts to your Cornell account. If you don't have an existing CITI account, click on "Create a new account". If you have an existing account, click on "Merge with my existing CITI account".
3. On your CITI Main Menu page, click on "Add a course or update your learner groups for Cornell University".
4. From the Select Curriculum menu, go to "Question 2" and select the RCR course that best matches your research area. Click on "Continue".
5. The course will now appear in your "My Courses" menu with a status of "Not started- enter". After you sign the Integrity Assurance Statement, you can begin with the required modules. Each module includes a test. Passing score for the tests is 80%.
6. If you would like to take the course in more than one sitting, you may do so. The next time you visit the CITI site the status of the course will be "Incomplete". Click on the Status to get started or continue from where you left off.
7. After you have completed the modules, you will be given the option to print a completion report. Print out a report and keep a copy for yourself.
8. Your grade will be recorded and be provided by ORIA to your department's research administrator.

9. You may return to the CITI site at any time to get another copy of your completion report.
10. You may browse the other CITI training courses available to Cornell by clicking on "Add a course or update your learner groups for Cornell University". These courses are offered at no additional cost to you or the University. You will get a course completion report for each additional course that you complete.

Login to CITI with Cornell NetID

For questions regarding the Responsible Conduct of Research program at Cornell, please contact Nicole Albright ([nja35@cornell.edu](mailto:nja35@cornell.edu)) or Amita Verma ([av234@cornell.edu](mailto:av234@cornell.edu)).

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  - [Research@Cornell](#)
  - [Research Administration](#)
  - [Technology Transfer](#)
  - [Research Centers](#)
- 

## Responsible Conduct for Research

---

- [RCR Home](#)
  - [Participants & Timeline](#)
  - [Access On-line Training](#)
  - [Administrative Procedures](#)
  - [Regulatory Background](#)
  - [Resources](#)
- 

[CITI online Foundational Training Course for RCR](#)

**Individuals who have received passing scores of 80% or higher as of 8/30/2011**

### Administrative Procedures

The Office of Research Integrity and Assurance (ORIA) will facilitate some of the work required to track, notify, and monitor on-line RCR trainees, until a more comprehensive and efficient tool is available for departments. In addition to requirements for delivery of formal RCR training, institutions are responsible for maintaining and providing upon request records confirming completion of this required RCR training.

ORIA Responsibilities:

1. Make available the foundational on-line training and serve as a resource for access and other issues related to the online training and for departments with any questions they have regarding meeting the program requirements,
2. For the initial group of trainees (those paid on NSF and applicable NIH awards this calendar year, from January 4, 2010 through Dec 31, 2010), ORIA will contact these individuals to notify them of the training requirement and provide instructions for completing the on-line training,
3. Provide a list of these individuals to departments
4. Provide departments with the standard communication that they will use to inform newly appointed (on and after January 1, 2011) students and postdoctoral associates of the required on-line training,
5. Provide department administrators with regular updates on those who have completed on-line training to help them keep track of progress and remind individuals of deadlines after which corrective actions will need to be taken,
6. Reach out to department administrators to get feedback on the process and to make reasonable

enhancements to tracking and monitoring if required.

#### Department Administrator Responsibilities:

1. For the initial group of students/postdocs (those paid from NSF/applicable NIH awards between January 4, 2010 and December 31, 2010 and originally notified by ORIA),
  - a. Track individual's progress in completing on-line training (ORIA will provide regular training completion reports)
  - b. Follow-up with those from this initial group who have not completed the training
  - c. Work with ORIA to take corrective action if an individual does not successfully complete the training by the deadline (note: if any of these initial trainees is no longer at Cornell, please contact ORIA for information on how to proceed)
  - d. Note: If an individual does not successfully complete the training by the due date, the NSF or NIH funding source cannot be available for their financial support and the individual's department or college will be required to determine an alternative funding source.
2. Beginning January 2011, and on an ongoing basis, notify students and postdoctoral researchers appointed on or after January 1, 2011 to any NSF or applicable NIH award that they must complete on-line RCR training (form letter provided by ORIA) with the deadline being 30 days from appointment date
3. Track individual's progress in completing on-line training (regular reports provide by ORIA) to ensure that they complete on-line training.
4. Take corrective action for any individual who does not successfully complete training by the deadline.
  - a. Note: If an individual does not successfully complete the training by the due date, the NSF or NIH funding source cannot be available for their financial support and the individual's department or college will be required to determine an alternative funding source.

Please note these important deadlines for the completion of the online RCR courses:

- Dec 31, 2010 for individuals appointed Jan 1, 2010 and November 30, 2010.
- One month from the date of the appointment for individuals appointed to applicable awards on or after December 1, 2011.

Nicole Albright, RCR Administrative Assistant ([nja35@cornell.edu](mailto:nja35@cornell.edu)), is available to answer any questions you may have.

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  - [Technology Transfer](#)
  - [Research Centers](#)
- 

## Responsible Conduct for Research

---

- [RCR Home](#)
  - [Participants & Timeline](#)
  - [Access On-line Training](#)
  - [Administrative Procedures](#)
  - [Regulatory Background](#)
  - [Resources](#)
- 

### Regulatory Background

In 2007, the America COMPETES Act ([http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110\\_cong\\_bills&docid=f:h2272enr.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h2272enr.txt.pdf)) instituted the requirement that all grant applications to the NSF with funding for postdoctoral support include a description of mentoring provided to those postdocs. The Act further requires that, beginning January 4, 2010, each institution that applies for financial assistance from the NSF describe in proposals 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.

In response, the National Science Foundation (NSF) in August 2009 updated its guidelines to require that, effective with all applications submitted after January 4, 2010, undergraduate and graduate students and postdoctoral researchers who are research personnel on NSF awards receive training in the responsible conduct of research. Specifically, the NSF requires that in addition to PIs providing a postdoctoral mentoring plan with each proposal, the institution have a plan describing the RCR training and oversight activities for undergraduates, graduates, and postdocs supported by NSF funds; certify compliance; and provide copies of such plans and verification that those supported by the NSF have received the required training (<http://edocket.access.gpo.gov/2009/E9-19930.htm>).

In November 2009, the National Institutes of Health (NIH) updated its requirements for instruction in RCR to require 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 receive instruction in responsible conduct of research, effective 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. (<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>).

In both cases, Institutions are responsible for maintaining and providing upon request records confirming completion of this required RCR training.

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  - [Research Administration](#)
  - [Technology Transfer](#)
  - [Research Centers](#)
- 

## Responsible Conduct for Research

---

- [RCR Home](#)
  - [Participants & Timeline](#)
  - [Access On-line Training](#)
  - [Administrative Procedures](#)
  - [Regulatory Background](#)
  - [Resources](#)
- 

## RCR Resources

Office of Research Integrity (ORI)

Introduction to RCR:

<http://ori.dhhs.gov/education/products/RCRintro/>

RCR Educational Resources:

[http://ori.hhs.gov/education/rcr\\_resources.shtml](http://ori.hhs.gov/education/rcr_resources.shtml)

The Lab, Interactive Movie

<http://ori.hhs.gov/TheLab/>

NSF RCR Resources, FAQs:

<http://www.nsf.gov/bfa/dias/policy/rcr.jsp>

NIH RCR Resources:

[http://grants.nih.gov/grants/research\\_integrity/index.htm](http://grants.nih.gov/grants/research_integrity/index.htm)

<http://grants.nih.gov/training/responsibleconduct.htm>

[http://grants.nih.gov/grants/policy/hs\\_educ\\_faq.htm](http://grants.nih.gov/grants/policy/hs_educ_faq.htm)

Materials from other institutions:

Inventory of syllabuses, PowerPoint slides, videos, lecture notes, handouts, and links for use in RCR educational training.

Clinical Research Ethics Educational Materials:

<http://www.ctspedia.org/do/view/ResearchEthics/>

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## FAS Research Administration Services

# Requirements for Training in the Responsible Conduct of Research (RCR)

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National Institutes of Health (NIH) and the National Science Foundation (NSF) both require RCR training. The two agencies differ in their specifications with regard to content and delivery.

NIH requires that all trainees, fellows, participants, and scholars receiving support through any NIH training, career development award (individual or institutional), research education grant, or dissertation research grant must receive instruction in responsible conduct of research. This must include substantial face-to-face discussions among the participating trainees/ fellows/ scholars/ participants; a combination of didactic and small-group discussions (e.g. case studies); and participation of research training faculty members in instruction in responsible conduct of research is highly encouraged. While on-line courses can be a valuable supplement to instruction in responsible conduct of research, online instruction is not considered adequate as the sole means of instruction. See below for a course description to include in NIH grant applications that have a requirement for RCR training. For more information, see the NIH [Update on the Requirement for Instruction in the Responsible Conduct of Research](#).

NSF requires each institution that submits proposals for science and engineering research or education to have a plan in place to provide appropriate training and oversight to all undergraduate students, graduate students, and postdoctoral researchers who will participate in the proposed research project. However, the NSF has given institutions much more flexibility than NIH in providing RCR training, stating that it is the responsibility of each institution to determine both the content and the delivery method that will meet the institution's specific needs for RCR training. For more information, please see the [NSF RCR web page](#).

### **Faculty of Arts and Sciences Guidance**

The FAS offers an RCR course that will satisfy the training requirements for undergraduates, graduate students, and postdocs on NIH and NSF awards (see description below). RAS also works with FAS departments and centers to identify graduate students and postdocs on NIH training grants and fellowships and undergraduate students, graduate students, and postdoctoral researchers supported by NSF who require RCR training and to verify that these individuals have received training.

As mentioned above, NSF applications do not require a description of the RCR training to be included in grant applications. The institution must certify at the time of proposal submission that it has a plan to offer appropriate training in the responsible and ethical conduct of research.

**The following course description should be included in NIH grant applications for awards that have a requirement for RCR training.**

### **Responsible Conduct of Research**

**Mark Barnes and Delia Wolf**

**Lectures: One 3-hour session each week, for five weeks.**

This course is required for all graduate students, all postdoctoral fellows engaged in research activities supported by the

National Institutes of Health (NIH), and all undergraduate students, graduate students, and postdoctoral researchers participating in research projects supported by the National Science Foundation (NSF). The course describes basic ethical and regulatory requirements for conducting research. Topics include ethical issues in biomedical and public health research; regulations and guidelines governing research involving human as well as live vertebrate animal subjects; financial and non-financial conflicts of interest; responsible authorship and publication; peer review; ownership of data and biological samples; grant writing; budgeting and adequate allocation of resources; mentor-mentee relationships and responsibilities; data acquisition, selection, and management; sharing of research results; intellectual property; safe laboratory practices, mistakes, and negligence; and research misconduct and responding to suspected research/professional misconduct.

**Course Note:** Students are expected to attend all lectures, participate in class discussions, and complete written homework case study assignments.

[For more information and to register, click here and log in to the RCR Registration iSite.](#)

[Click here to download frequently asked questions about the course and who has to take it.](#)

### **CITI RCR Training**

The Office of the Vice Provost for Research (VPR) at Harvard has also licensed an online RCR training program from the Collaborative Institutional Training Initiative (CITI). The CITI "Course in the Responsible Conduct of Research" is a public-access course available without charge to the research community. While the CITI program does not satisfy the requirements of NIH RCR training because it is completely online, this course is highly informative and contains all of the major elements of RCR training. The CITI program may be used to satisfy the NSF RCR requirements, or to supplement the in-person RCR course described above.

Information on the CITI Course can be found on the VPR website:

<https://www.citiprogram.org/rcrpage.asp?language=english&affiliation=100>

[Last modified: 04/26/11 ]

# *FAS Research Administration Services Registration iSite*

- [Guest](#)
- [login](#)
  
- [Main](#)
- [Responsible Conduct of Research Course](#)
- [GMAS Rollout Implementation Plan](#)
- [Social Sciences Finding Funding Workshop](#)
- [Arts & Humanities Finding Funding Workshops](#)
  
- - [Maximize](#)
  - [Print](#)

## Course Announcements

**The RCR Training Course for Spring 2011 has Ended.**

**~~If you have not done so, please register by completing the survey at the bottom of the page.~~**

[Click Here to Download Information About the Course, including Instructors, and the Dates, Times, and Locations of each Class](#)

[Click Here to Download Frequently Asked Questions \(FAQs\) About the Course](#)

[Click Here for More Information on How to Meet RCR Training Requirements](#)

If you have further questions after reading the FAQ above, please email [agomes@fas.harvard.edu](mailto:agomes@fas.harvard.edu)

- - [Maximize](#)
  - [Print](#)

## Dropbox

You're not currently logged in. You may need to log in to view this content.

- - [Maximize](#)
  - [Print](#)

## Class Handouts

**Course Syllabus**

[RCR Syllabus Spring 2011.pdf](#)

**Week 5 Case Studies, Due Before Class, April 22nd**

[Cases 11 12.pdf](#)

**Week 5 Lecture Slides**

[RCR\\_Week\\_5\\_042211.pdf](#)

**Week 5 Reading, to be Done Before Class, April 22nd**

ORI Introduction to the RCR Book, pages 87-99

[Attachment 1\\_Harvard University Information Security.pdf](#)

[Attachment 2\\_Frequently Asked Questions\\_COC.pdf](#)

[Attachment 3\\_Moore v Regents of the University of California.pdf](#)

**Week 4 Case Studies**

NONE

**Week 4 Reading, to be Done Before Class, April 15th**

ORI - pages 19-30

On Being a Scientist - pages 15-23

**Week 3 Case Studies, Due Before Class, April 15th**

[Cases 9 and 10.pdf](#)

**Week 3 Lecture Slides and Handout**

[Use of Animals in Research - RCR 2011.pdf](#)

[EMESH Training for RCR - 2011.pdf](#)

[EMESH Regulatory Citations.pdf](#)

**Week 3 Reading, to be Done Before Class, April 8th**

Animal Research - ORI book, pages 51-66; On Being a Scientist, pages 24-27

Lab Safety - On Being a Scientist, pages 28-29

Intellectual Property - On Being a Scientist, pages 39-42, ORI book, pages 87-90

Mistakes and Negligence - On Being a Scientist, pages 12-14

**Week 2 Case Studies, Due Before Class, April 8th**

[Cases 5 and 6.pdf](#)

[Cases 7 and 8.pdf](#)

**Week 2 Reading, to be Done Before Class, April 1st**

[BelmontReport.pdf](#)

[Declaration of Helsinki.pdf](#)

[ORI Press Release - Dr. Eric T. Poehlman.pdf](#)

[Research Misconduct FAQ ORI.pdf](#)

[Title 45.pdf](#)

**Week 2 Lecture Slides**

[RCR\\_Lecture\\_040111\\_Human Research and COI.pdf](#)

[RCR\\_Lecture\\_040111\\_Research Misconduct.pdf](#)

**Week 1 Case Studies, Due Before Class, April 1st**

[Cases 1 and 2\\_Due\\_April 1st.pdf](#)

[Cases 3 and 4\\_Due\\_April 1st.pdf](#)

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## **Responsible Conduct of Research (RCR)**

A non credit course for all students and Postdoctoral Fellows

The RCR course objective is to provide education in the responsible conduct of research for undergraduate and graduate students and post-doctoral research fellows. The course is designed to satisfy the RCR requirements associated with research awards from the National Institutes of Health (NIH) and the National Science Foundation (NSF). However, the course is open to all interested students and postdocs.

The FAS RCR course starts in March and will comprise five 3-hour sessions consisting of case studies and lectures by the University's Chief Research Compliance Officer, Mark Barnes and Delia Y. Wolf, Director, Office of Human Research Administration at Harvard School of Public Health.

### **Course Schedule and Locations:**

**March 25th: 2pm –5pm** (Mark Barnes) Jefferson 250

**April 1<sup>st</sup>: 8am – 11am** (Delia Wolf) CGIS, Tsai Auditorium

**April 8<sup>th</sup>: 8am – 11am** (Mark Barnes) CGIS, Tsai Auditorium

**April 15<sup>th</sup>: 2pm – 5pm** (Mark Barnes) Jefferson 250

**April 22<sup>nd</sup>: 8am – 11am** (Delia Wolf) CGIS, Tsai Auditorium

**Students and Postdocs interested in registering for this course should register via the web at <http://isites.harvard.edu/icb/icb.do?keyword=k60142&pageid=icb.page412714> no later than March 18<sup>th</sup>.** Syllabus and Frequently Asked Questions may also be downloaded from there.

## **Frequently Asked Questions Regarding Training in the Responsible Conduct of Research (RCR)**

**Q. I receive funding support from the National Institutes of Health (NIH). Am I required to take RCR training?**

**A. 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 conduct of research. This policy will take 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 conduct of research as stated in the relevant funding opportunity announcements.**

**Q. I receive funding support from the National Science Foundation (NSF). Am I required to take RCR training?**

**A. NSF requires 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.”**

NSF expects institutions to be able to verify that those students (undergraduates and graduates) and postdoctoral researchers who receive NSF funds (support from salary and/or stipends to conduct research on NSF grants) will obtain RCR training. However, NSF anticipates that institutions will develop their RCR training programs in a manner that helps prepare the next generation of researchers, including the consideration of risks or other factors associated with student and postdoctoral researcher participation in research.

**Q. What options are available to me if I am required to have RCR Training?**

**A. The NIH and the NSF have different requirements governing the content of RCR training. NIH has very specific requirements and NSF have given institutions much greater flexibility to determine the content and format of RCR training.**

**If you are required to take RCR training because of support you receive from NIH, it is recommended that you take course that conforms to the NIH specifications, including in-person lectures, faculty involvement, and case studies. NIH will not consider online training sufficient to meet its RCR requirements.**

**FAS is offering the following class which will satisfy the NIH requirements:**

**Course Schedule and Locations:**

**March 25<sup>th</sup>: 2pm –5pm** (Mark Barnes) Jefferson 250  
**April 1<sup>st</sup>: 8am – 11am** (Delia Wolf) CGIS, Tsai Auditorium  
**April 8<sup>th</sup>: 8am – 11am** (Mark Barnes) CGIS, Tsai Auditorium  
**April 15<sup>th</sup>: 2pm – 5pm** (Mark Barnes) Jefferson 250  
**April 22<sup>nd</sup>: 8am – 11am** (Delia Wolf) CGIS, Tsai Auditorium

**You may register for this course by visiting the following website (which requires a Harvard ID and Pin #):**

<http://isites.harvard.edu/icb/icb.do?keyword=k60142&pageid=icb.page412714>

**If you are required to take RCR training because of support you receive from NSF, you may enroll in the RCR course above, or you may choose an online option, CITI RCR Training. Information on the CITI training follows.**

### **CITI RCR Training**

The Office of the Vice Provost for Research (VPR) at Harvard has also licensed an online RCR training program from the Collaborative Institutional Training Initiative (CITI). The CITI "Course in the Responsible Conduct of Research" is a public-access course available without charge to the research community. While the CITI program does not satisfy the requirements of NIH RCR training because it is completely online, this course is highly informative and contains all of the major elements of RCR training. The CITI program may be used to satisfy the NSF RCR requirements, or to supplement the in-person RCR course described above.

Information on the CITI Course can be found on the VPR website:

<https://www.citiprogram.org/rcrpage.asp?language=english&affiliation=100>

**Q. I received RCR training previously, do I have to take a RCR course again?**

**A. For students and Postdoctoral Fellows on NIH awards, The following guidance explains the frequency of RCR instruction.**

Frequency of Instruction: Reflection on responsible conduct of research should recur throughout a scientist's career: at the undergraduate, post-baccalaureate, predoctoral, postdoctoral, and faculty levels. Instruction must be undertaken at least once during each career stage, and at a frequency of no less than once every four years.

**For students and Postdoctoral Fellows on National Science Foundation (NSF) awards, NSF recently implemented a RCR requirement for the first time. All undergraduate, graduate and Postdocs must**

**Q. How do I learn more about NIH and NSF RCR Requirements?**

**A. A description of the NIH RCR Requirements can be found at:**

<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>

**Information on NSF RCR requirements can be found at:**

[http://www.nsf.gov/pubs/policydocs/pappguide/nsf10\\_1/aag\\_4.jsp](http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/aag_4.jsp)

Also, please review the NSF "Frequently Asked Questions" website for answers to commonly asked questions:

<http://www.nsf.gov/pubs/policydocs/rcr/rcrfaq.jsp#3>

**Please contact Marva Bernard Saunders at [mbernard@fas.harvard.edu](mailto:mbernard@fas.harvard.edu) if you have questions on RCR training.**

## **Responsible Conduct of Research**

### **March 25, 2011 – April 22, 2011**

#### **Instructor Information**

**Instructors:** Mark Barnes, JD, LL.M. and Delia Wolf, MD, JD

**Instructors' Title:** Delia: Assistant Professor, Health Policy and Management, HSPH  
Mark: Chief Research Compliance Officer, Harvard University;  
Lecturer on Law, Harvard Law School

**Depart. Association:** Health Policy and Management, HSPH

**Email Address:** [mark\\_barnes@harvard.edu](mailto:mark_barnes@harvard.edu)  
[dywolf@hsph.harvard.edu](mailto:dywolf@hsph.harvard.edu)

**Phone Number:** (617) 384-5486 (D. Wolf)  
(617) 496-8462 (M. Barnes)

**Office Hours:** By appointment

**Office Address:** 1552 Tremont St. (Delia)  
Holyoke Center, Room 635 (Mark)

#### **Texts and Reading Materials**

- a) Required text book:
- 1) "*On Being a Scientist, A Guide to Responsible Conduct in Research*," 3rd Edition, by National Academy of Sciences, National Academy of Engineering, and Institute of Medicine  
[http://www.nap.edu/openbook.php?record\\_id=12192&page=8](http://www.nap.edu/openbook.php?record_id=12192&page=8)
  - 2) ORI Introduction to the Responsible Conduct of Research  
<http://ori.dhhs.gov/documents/rcrintro.pdf>
- b) Additional reading materials will be posted on the course website.

#### **Course Objectives:**

At the end of the course the student will be able to:

- 1) Describe the concepts of research misconduct and research integrity.
- 2) Describe basic ethical and regulatory requirements for conducting bench, animal, clinical, and public health research and apply them to research practice.
- 3) Recognize when laboratory practices, publication practices, and other research practices deviate from legal, ethical, or regulatory requirements.
- 4) Describe practices that promote compliance with ethical and legal requirements for the responsible conduct of research.

## Outcome Measures

- a) Class participation – Class participation consists of attending a minimum of 4 lectures, preparation, and constructive contributions to class discussion
- b) Case studies – students are expected to submit their written answers to all 12 cases during the 5-week period.

## Grading Criteria

Pass/Fail

## Additional Information

This course will meet the NIH and NSF training requirement for all trainees, fellows, participants, and scholars receiving support through any NIH or NSF training, career development award, research education grant, or dissertation research grant. Graduate students, post-doctoral fellows, and junior faculty members will be allowed to audit the course, but are expected to attend a minimum of six lectures, participate in class discussions, and complete all case study assignments.

## Session by Session Detail

<b>Date</b>	<b>Topic</b>	<b>Instructor</b>
Week 1 March 25 2-5pm Jefferson 250	<ul style="list-style-type: none"><li>• Introduction to the responsible conduct of research</li><li>• Scientist as a responsible member of the society – ethical issues in biomedical and public health research</li><li>• Mentor-mentee relationship and their responsibilities</li><li>• Grant writing, budgeting and adequate allocation of resources</li><li>• Peer review</li><li>• Responsible authorship and publication</li><li>• Cases 1, 2, 3 and 4 will be distributed</li></ul>	M. Barnes
Week 2 April 1 8-11am CGIS Tsai Auditorium	<ul style="list-style-type: none"><li>• Cases 1, 2, 3, and 4 written assignments due</li><li>• Regulations and guidelines governing research involving human subjects</li><li>• Financial and non-financial conflicts of interest</li><li>• Research misconduct (brief overview)</li><li>• Cases 5, 6, 7 and 8 will be distributed<ul style="list-style-type: none"><li>○ Case #5: Test on Students</li><li>○ Case #6: Course Assignment</li><li>○ Case #7: Suspected research misconduct</li><li>○ Case #8: One of the ORI video clips</li></ul></li><li>• Additional readings (email students on <b>3/25</b>):<ul style="list-style-type: none"><li>○ Belmont Report</li><li>○ Declaration of Helsinki</li><li>○ 45 CFR 46</li><li>○ Research Misconduct FAQ ORI</li><li>○ ORI Press Release _Dr. Eric Poehlman</li><li>○ “The Lab: Avoiding Research Misconduct tutorial - <a href="http://ori.hhs.gov/TheLab">http://ori.hhs.gov/TheLab</a></li></ul></li></ul>	D. Wolf

<p>Week 3 April 8 8-11am CGIS Tsai Auditorium</p>	<ul style="list-style-type: none"> <li>• Cases 5, 6, 7 and 8 assignment due</li> <li>• Regulations and guidelines governing research involving live vertebrate animal subjects</li> <li>• Mistakes and negligence</li> <li>• Intellectual property</li> <li>• Safe laboratory practice</li> <li>• Cases 9 and 10 will be distributed</li> </ul>	<p>M. Barnes</p>
<p>Week 4 April 15 2-5pm Jefferson 250</p>	<ul style="list-style-type: none"> <li>• Cases 9 and 10 assignment due</li> <li>• Research misconduct</li> <li>• Responding to suspected violations of professional standards</li> <li>• Export control</li> <li>• No case studies (Guest speaker)</li> </ul>	<p>M. Barnes  Guest speaker - Scott Moore</p>
<p>Week 5 April 22 8-11am CGIS Tsai Auditorium</p>	<ul style="list-style-type: none"> <li>• Data acquisition, protection, sharing and management</li> <li>• Ownership of data and biological samples</li> <li>• Collaborative research including collaborations with industry</li> <li>• Harvard University Data security policy</li> <li>• Cases 11 &amp; 12 will be distributed <ul style="list-style-type: none"> <li>○ Case #11: Data Collection and ownership</li> <li>○ Case #12: Data security (based on HU data security policy)</li> </ul> </li> <li>• Additional Readings (email students on <b>4/15</b>): <ul style="list-style-type: none"> <li>○ Harvard University Information Security Policy</li> <li>○ FAQs – Certificate of Confidentiality</li> <li>○ Moore v. Regents of the University of California – Case Brief Summary</li> </ul> </li> </ul>	<p>D. Wolf</p>

**Course Evaluations**

Completion of the evaluation is a requirement for the course. Student grades will not be available until an evaluation is completed.

## IU RCR Program to meet new NSF requirement

**Nov. 9, 2009** - As many of you know, effective 4 January 2010, a new requirement will be in place for all applications submitted to NSF. By submitting an application, the Institution and PI are certifying that all undergraduate students, graduate students and post-docs supported by that grant will successfully complete an institutional program of education in the Responsible Conduct of Research (RCR).

After discussion with IU Research Officers, numerous Deans, Associate Deans and Department Chairs, and faculty, the Office of Research Administration has developed a two-part program of education to meet this requirement.

Successful completion of selected modules of the on-line RCR program hosted by the Collaborative Institutional Training Initiative (CITI) at University of Miami; and

Discipline specific mentoring by the PI and lead investigators during the course of the grant

Indiana University has started the process of subscribing to the on-line RCR program offered by CITI. More information including how to access the program will be provided in the near future.

The CITI program offers RCR core modules that are customized to various discipline categories:

Biological/Biomedical Sciences

Engineering Sciences

Humanities

Physical Sciences

Social Sciences

Research Administration

All undergraduate and graduate students and post-docs support by NSF funds will be required to complete, within their discipline category, chapters and pass tests covering the following RCR core areas. We estimate that this should take between one and a half and three hours to complete:

Introduction to RCR

Authorship and Publication

Collaborative Research

Data Acquisition and Management

Conflict of Interest

Mentoring

Research Misconduct

Peer Review

Modules covering research with human subjects and research with animals will not be required as these topics are introduced in the overview chapter and if anyone is doing such research, they will be completing the educational program as required by an IRB and IACUC

At the current time, there is no section in the standard NSF application for the PI to write or insert information about this training. It is an institutional certification and by submitting the grant the institution is confirming its intent to comply with this requirement

More information, including examples of modules and instructions for accessing the material will be forthcoming prior to the implementation date of January 4, 2010. In the meantime, if you have any questions or require further information please contact:

John Baumann, Ph.D.  
Executive Director  
Research Ethics, Education and Policy  
Office of Research Administration  
[baumannj@indiana.edu](mailto:baumannj@indiana.edu)  
[baumannj@iupui.edu](mailto:baumannj@iupui.edu)

## Educational Opportunities

**University-wide Research Education - CITI**

# CITI

 Collaborative Institutional Training Initiative


Welcome to the Indiana University CITI program log-in site (CITI is the Collaborative Institutional Training Initiative program, administered by the University of Miami). CITI is a protected site. To gain access, every new user must register.

Below is a list of the CITI educational modules you have the option to select. Please read the information below to make sure you are selecting the correct course when the CITI program prompts you to do so.

**NOTE:** the Responsible Conduct of Research (RCR) and/or Good Clinical Practices (GCP) modules DO NOT need to be completed for IRB requirements (human subject research).

- **Are you an Investigator, research team member, or student doing Human Subject Research?**

If yes, select 'Human Subject Research course'. You must take the 'Human Subject Research course' in order to submit to the IRB or be listed as part of the research team. There are two educational tracks: Biomedical or Social and Behavioral. You should choose the track that correlates best with the type of research in which you are involved.

- **For Researchers at IUPUI**

- If you generally submit to IRB-01, you would select 'Social/Behavioral'.
    - If you generally submit to IRB-02, IRB-03, IRB-04, and IRB-05 you should select 'Biomedical'.
    - For more information about the educational requirements, please visit the [IRB CITI FAQs site](#).

- **Are you a student or post-doc paid off of an NSF grant which was submitted on or after 4 January 2010 or NIH new or renewal training grants (D, F, K, R, and T series grants)?**

If yes, select the 'Responsible Conduct of Research (RCR) course'. **NOTE:** This is not required for the [IRB](#) when doing human subject research. "RCR" educational modules are part of the NSF requirement for undergraduate students, graduate students and post-docs supported by NSF funds.

- **Are you an Investigator or a research team member doing Research with Animals?**

If yes, select 'Working with the IACUC course'. This is required if you plan to use lab animals in your work. Then select the type of animal with which you work.

- **For BIACUC**

- Animal users also need to complete the 'Occupational Health and Safety for Training Personnel Working with Research Animals course'.

- **Are you interested in Good Clinical Practice?**

If yes, select the 'Good Clinical Practice course'. GCP educational course is made available for the research community and is not required by any compliance committee or funding agency. **NOTE:** This is not required for the IRB when doing human subject research.

Do you have an IU Network ID and Password? (If you have an Indiana University Network ID (username and pass phrase), registration will automatically be done for you when you log in for the first time.)

<input type="button" value="Yes"/>	<input type="button" value="No"/>
------------------------------------	-----------------------------------

Note: If you have completed CITI courses at a previous institution, you will need to contact REEP to be able receive credit for your CITI course as an IU employee. Please contact REEP via the email listed under 'Contact us' to the left.



# RCR Implementation Plan

## Background

As part of the America Creating Opportunities to Meaningfully Promote Excellence in Technology ([/glossary/term/218](#)), Education, and Science (COMPETES) Act, the National Science Foundation introduced a new requirement for educating all undergraduate, graduate and postdoctoral researchers being supported by NSF [awards \(/glossary/term/42\)](#). The policy states that as a condition for proposing projects after January 4, 2010, institutions must have a plan in place to provide appropriate training and oversight in the responsible and ethical conduct of research (RCR) for undergraduates, graduate students and postdoctoral researchers who will be supported by NSF research [awards \(<http://osp.mit.edu/glossary/term/42>\)](#).

## Policy Statement

MIT makes available education in the Responsible Conduct of Research to all students, postdoctorals, research and administrative staff as an important component of their professional development. This training is provided online through [CITI Course in the Responsible Conduct of Research \(RCR\) \(<http://coeus.mit.edu/coeus/citi/CitiLogin.jsp>\)](#).

All MIT undergraduate students, graduate students and postdoctoral researchers paid by NSF research awards subject to the America COMPETES Act **MUST** complete this training no more than sixty days after salaries are charged to the account. **Salary costs for individuals who have not completed the required training within 60 days are unallowable and will be removed from the account.**

## Training Requirement

The Institute requires that all undergraduate students, graduate students and postdoctoral researchers, including short-term students and visitors, paid by NSF research awards subject to the America COMPETES Act **MUST** complete the CITI Course in the Responsible Conduct of Research (RCR) in order for salary charges to be allowed on the award. At a maximum, this training must be **completed no more than sixty days after salaries are charged to the account.**

The basic RCR course includes the following topics:

- Introduction to the Responsible Conduct of Research
- Research Misconduct
- Data [Acquisition \(<http://osp.mit.edu/glossary/term/37>\)](#) and Management
- Responsible Authorship
- [Peer Review \(<http://osp.mit.edu/glossary/term/159>\)](#)
- Mentoring
- Conflicts of Interest
- Collaborative Research

In order to make the training as meaningful as possible for MIT trainees, Principal Investigators should choose the appropriate RCR program from the following available modules:

- Biomedical Sciences
- Social and Behavioral Sciences
- Humanities
- Engineering
- Administration

## Oversight and Mentoring

Principal Investigators are responsible for ensuring that all students and postdoctorals supported on their research awards subject to the America COMPETES Act complete the required training. PIs will be made aware of the applicability of the training requirement through the standard Notice of Award Process.

Departmental Administrators play a key role in ensuring compliance with this requirement, consistent with all compliance activities.

All training records will be transmitted from CITI directly into each individual's official training record in MIT's [SAP Enterprise Learning Module \(http://web.mit.edu/sapwebss/PS1/training\\_home.shtml\)](http://web.mit.edu/sapwebss/PS1/training_home.shtml). To assist PIs in ensuring compliance with the requirement, OSP will regularly post customized reports to the RCR web page. Reports include:

- Awards subject to the NSF RCR training requirement
- Individuals who have yet to complete the required training
- All individuals at MIT who have completed the training

*(An MIT certificate is required to access these reports)*

If the training is not completed within 60 days of the salary being charged to the project, the costs for the period in excess of the 60 days are considered unallowable. They will be removed from the award and transferred to the Principal Investigator's discretionary account by the Office of the Vice President for Finance.

The Office of the Vice President for Research & Associate Provost, in collaboration with the Assistant Deans of the schools, are responsible for oversight and monitoring of compliance.

Any questions about the applicability of this requirement should be directed to your [OSP representative \(http://osp.mit.edu/about-osp/staff/by-department\)](http://osp.mit.edu/about-osp/staff/by-department).

## Summary of Roles and Responsibilities

	OSP	PIs	DLC Admins	VP for Research	Assistant Deans/ Provosts	Sponsored Project Accounting
Provides oversight and monitoring of the program	X			X		
Develops management reports to track compliance; develops proactive means of notifying trainees of the NSF training requirement when trainee is charged to the award.	X					

	OSP	PIs	DLC Admins	VP for Research	Assistant Deans/ Provosts	Sponsored Project Accounting
Identifies awards with RCR training requirement and notifies PI and DLC administrators via Notice of Award process	X					
Ensures that all students and postdoctorals supported on their research awards subject to the America COMPETES Act complete the required training.		X				
Regularly reviews monitoring reports to assist PIs in ensuring compliance			X			
Follows up with DLCs in their area in cases where compliance is not met at a critical point. Takes corrective action as needed.					X	
Removes unallowable charges from awards						X

# **Responsible Conduct of Research 2011-2012**

## **Individual, Institutional, and Professional Responsibility for Ethical Practice & Integrity in Research/Scholarship**

### **Graduate Education & Postdoctoral Training at Michigan State University**

Our collective goal is to prepare students and postdoctoral researchers to become globally-engaged citizen-leaders. Central to achieving this goal is the ability to conduct quality research/scholarship as the foundation for strong professional reputations for individuals, their departments and graduate programs, and Michigan State University (MSU). For students and postdoctoral trainees, professional development occurs under the guidance and leadership of individual faculty through partnerships intended to be mutually beneficial. To be successful, these partnerships must be based on a shared commitment to responsible research/scholarly practices based on key principles of research integrity. This workshop series will highlight these key principles and repeatedly emphasize that research and scholarly integrity is a fundamental characteristic of quality research/scholarship in all disciplines.

#### **Schedule of Presentations**

##### 2011-2012 RCR Syllabus

##### Being an Early Career Scholar

Wednesday, September 14, 2011

6:00 - 7:30 pm

Room 103 Erickson Hall (the Kiva)

##### Scientific Communications, Rights to Data, and Authorship

Thursday, October 6, 2011

6:00 - 7:30 pm

Room 103 Erickson Hall (the Kiva)

##### Plagiarism—what it is and how to avoid it

Wednesday, November 2, 2011

6:00 - 7:30 pm

Room 103 Erickson Hall (the Kiva)

##### Data Management

Wednesday, November 16, 2011

6:00 - 7:30 pm

Room 103 Erickson Hall (the Kiva)

##### Research Misconduct

Wednesday, January 18, 2012

6:00 - 7:30 pm

Room 103 Erickson Hall (the Kiva)

##### Responsibility to Human Participants in Research

Tuesday, January 31, 2012

6:00 - 7:30 pm

Room 103 Erickson Hall (the Kiva)

##### Responsibility to Animals as Research Subjects

Thursday, February 2, 2012

6:00 - 7:30 pm

Room 103 Erickson Hall (the Kiva)

Conflict of Interest, Peer Review, & Collaboration/Teamwork

Wednesday, February 22, 2012

6:00 - 7:30 pm

Room 103 Erickson Hall (the Kiva)

**Why is this Workshop Series Offered?**

Pursuing a graduate degree and undertaking a research training experience is intensely personal; however, it is critically important that early career scholars understand that their research/scholarly work impacts others and contributes to the research/scholarship of others in important ways that may not always be clear. Work is often supported by public funding or with funding from private sources to address issues and questions important to individuals, companies, national interests, etc. Regardless of the scope of the impact, interested parties (both individuals and groups) trust that new information, and the reported outcomes they support, is accurate, true, and carefully considered. Inaccurate or flawed results can occur for many reasons ranging from mistakes or chance alone to malicious misrepresentations where individual researchers are responsible for violating important accepted principles of research integrity.

Students and trainees are accountable for deviations from and violations of established policies and professional standards concerning academic and research integrity. This is particularly important for students to understand, because the most serious violations can affect completion of individual courses and jeopardize enrollment as a student in a degree program. Findings of research misconduct in theses and dissertations after granting of a degree can even lead to revocation of the degree.

All interested individuals and parties who support, conduct, oversee, and use the results of research/scholarship share a common commitment for the importance of maintaining the integrity of research/scholarly enterprises. This includes a commitment that early-career scholars receive appropriate education and training in the responsible and ethical conduct of research. As part of this commitment, the Federal government implemented a requirement that students and post-doctoral trainees supported by Federal funds be educated and trained in the responsible and ethical conduct of research. MSU departments and graduate programs developed plans to provide this education and to assure compliance to the Federal government as the primary funder of university research/scholarship.

This workshop series is intended to support the efforts of departments and graduate programs which have the primary responsibility for educating and training students/trainees to understand, apply, and foster responsible research/scholarly practices within their departments and graduate programs according to national, university, and professional standards. The expectation is that student/trainee research/scholarship will be of higher quality and that students/trainees will be better able to avoid and respond to situations involving irresponsible research/scholarly practices and behaviors.

**Expectations of Your Participation in this Series**

- 1) As a student or postdoctoral trainee at MSU, it is your responsibility to do your own work to take full advantage of the opportunities presented to you. Departments, Schools and Interdisciplinary Programs are responsible for establishing requirements and developing plans for appropriate training and oversight in the ethical and responsible conduct of research. Many decided to require attendance at this workshop series as a key aspect of their educational strategies. The Certificate of Attendance offered after completing all workshops is the way that The Graduate School certifies to departments and programs, as well to the Federal government, that students and trainees have fully participated in the workshops. Taking short cuts or misrepresenting the extent of your participation deprives you of the value of this educational opportunity and devalues the time and effort of others. It is deceptive (i.e., a lie) to certify your attendance by signing the attendance sheet and then leave or ask another person to falsely sign your name.
- 2) It is your responsibility and duty to read and understand MSU's policies and procedures on academic and research integrity and misconduct. Misrepresenting your participation would be considered a violation and invalidate granting of a Certificate of Completion.
- 3) Workshops will begin promptly at 6 p.m. and end at 7:30 p.m. Please arrive early, sign the registration sign-in sheet, and pick up your materials by 5:50 p.m. so that everyone will be ready to begin the workshop at 6 p.m. Delays for late arrivals would disrupt the start and inconvenience others who arrive on time. Sign in is required, because certificates are provided for those who complete the full series as a requirement by many graduate programs and/or to meet NSF-mandated training and education for continued funding of your assistantship. Sign out will be required for two sessions chosen at random.
- 4) Preparation prior to each workshop is required in order to make the best use of our 90 minutes together. Pre-workshop readings and

specific tasks are listed under each workshop topic to facilitate learning and discussions, but it will be impossible in just 90 minutes to cover every important aspect of topics. Therefore, key issues and examples will be emphasized as case studies. **Every student is responsible for reading and considering the Pre-Workshop Readings and completing the Pre-Workshop Tasks as a prerequisite for identifying the issues and questions that are most important to their own interests.**

5) Short writing exercises will be included in each session to evaluate pre-workshop planning and understanding about key issues regarding the specific content of the session.

6) Because these sessions are designed to promote discussions, no cell phones or laptops will be allowed on desks or be used during the workshops.

7) Each participant will be provided a folder by the Graduate School to use at each session as a name card, to identify your department or training program, and to return writing exercises for review after individual workshops. This folder must be returned at the end of each session with writing assignments enclosed.

### **Issuance of a Certificate of Attendance**

All individuals (including faculty or other university employees) who desire to receive a Certificate of Attendance will be expected to participate and engage in all seven workshops as described in this syllabus. Everyone is welcome to attend both the workshop on "Protecting Human Research Participants" and "The Care and Use of Animals in Research", but attending only one of the two is required in order to receive a Certificate of Attendance. We understand that not everyone does research on one or the other, but understanding the ethical responsibilities for review by Institutional Boards and application of approved protocols is an important principle. There are other Institutional Boards that are required to oversee and review research protocols that will not be considered directly in the workshops.

Responses provided through the "short writing exercises" will be read and assessed as to whether or not they are responsive to the question asked. Attendance at all workshops (or excused absences from portions of workshops) as well as "suitable responses" to 80% of the writing exercises will be required as the basis for issuance of a Certificate of Attendance.

It is difficult for anyone to insure individuals will become committed to applying ethical standards and responsible research practices. However, we are serious about insuring that individuals are informed and educated about the key principles of research integrity.

A list of students completing the series will be provided to the graduate programs that require this series. You should also enter your name and completion information into the Research Training Tracking System (RTTS).

### **Workshop Series Outcomes**

Attendees are expected to commit to thinking about and discussing their understanding of responsible research practices both at workshops and with their student/trainee/faculty colleagues in their Departments, Schools and Interdisciplinary Programs. All attendees will be expected to participate actively by reading assigned materials in advance, contributing to group discussions, reflecting on and their understanding of professional principles and standards; and sharing views about responsible and ethical conduct of research/scholarship in their academic field of study. At the end of the workshop series, attendees will be expected to understand and be able to explain:

- MSU's rules concerning academic integrity, including possible disciplinary actions regarding allegations of academic or research misconduct;
- MSU's requirements for training and oversight in the responsible and ethical conduct of research;
- Where to find their department's or program's plan for training and oversight in the responsible and ethical conduct of research;
- The Key Principles of Research Integrity and core values of responsible and ethical conduct of research/scholarly practices;
- How to properly credit other's works in order to avoid accusations of plagiarism;
- How to reason logically and critically evaluate ethical dilemmas and professional situations to guide responsible and ethical actions in the conduct of research/scholarship;
- How their research/scholarship affects others, both professionally and personally; and
- How to responsibly collaborate with others in research/scholarly teams.

### **Accommodations**

Persons with disabilities or special needs should contact the Graduate School at 517-353-3231 to request arrangements no later than one week prior to the session date. Requests received after this date will be met when possible.

**Check-in at Workshops 5:30-5:50 p.m.; Workshop Programs 6:00 – 7:30 p.m.  
The Erickson Hall Kiva**

**Series Coordinator**

Terry A. May  
TGS/OVPRGS  
432-7140  
mayte@msu.edu

**Faculty Director**

Stephanie W. Watts, Professor  
Pharmacology & Toxicology  
353-3724  
wattss@msu.edu

**Dean & Associate Provost**

Karen L. Klomparens  
The Graduate School  
353.3220  
kklompar@grd.msu.edu

**Prior Registration is Required for All Workshops!**

New for 2011-12, the graduate school has implemented an online registration system. Please go to <http://grad.msu.edu/workshops/webreg.aspx> and follow the directions for registering.

Registration preference will be given to graduate students and postdocs from departments who regularly attend the RCR series in the past ten years ([list of departments](#)). Additionally, preference will also be given to students and post-docs funded by NSF grants.

For those students/postdocs funded by NSF, please include the following additional information: the title of grant, faculty PI, and MSU CGA grant number.

You may register for the entire series (recommended) or for an individual session. The deadline for registering for a session is one week before the session.

Persons with disabilities should contact the Graduate School at [gradwrsp@msu.edu](mailto:gradwrsp@msu.edu) to request arrangements no later than one week prior to the session date. Requests received after this date will be met when possible.

Last Modified: 8/25/2011

# Office for Research Integrity

[ORI Home](#) | [R](#)

## Responsible Conduct of Research (RCR)

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The goal of Responsible Conduct of Research (RCR) training is for anyone involved in research to perform the most ethical research possible. The National Institute of Health (NIH) and the National Science Foundation (NSF) each has their own regulations and requirements regarding RCR training.

### The National Science Foundation (NSF) RCR Requirements

Effective January 4, 2010, NSF requires that the institution have a plan in the proposal regarding RCR training for the undergraduate students, graduate students, and postdoctoral researchers who will be involved in the research. This applies to any new research proposals as well as any renewals after January 4, 2010.

### The National Institute of Health (NIH) RCR Requirements

NIH released their original requirements for RCR training on November 24, 2009. NIH requires that all individuals (undergraduate students, graduate students, postdoctoral researchers, etc.) who receive funding or support from any NIH training, an individual career development award, an institutional career development award, a research education grant, and/or a dissertation research grant, must receive RCR training. This newer, more stringent requirement effects all new and renewal applications submitted on or after January 25, 2010 and it will take effect for all continuation (Type 5) applications on or after January 1, 2011.

**There are not specific training topics required, but the following topics have been included in most of the acceptable training curriculums:**

- Conflict of interest
- Human Subjects
- Animal Welfare
- Mentor / Trainee Responsibilities
- Collaborative research and collaborations with industry
- Peer Review
- Data Acquisition, Management, Sharing and Ownership
- Research Misconduct
- Publication Practices and Responsible Authorship
- The scientist as a responsible member of society, environmental, ethical, and societal impacts of research

Training is not required for everyone but it is highly encouraged for all who deal with research being funded or supported by NIH. For more specific information on the NIH RCR training requirement, click the NIH guidelines on RCR training requirements link below.

### **RCR Training at Northwestern University (NU)**

Northwestern University offers various courses on the Responsible Conduct of Research. The trainings available are based on the audience attending. NU strongly encourages all students, staff, and faculty involved in research to attend RCR training in order to ensure that research is being conducted as ethically as possible.

Click [here](#) to see and/or register for the classes available through Northwestern University on RCR topics.

For questions regarding RCR training through The Graduate School, contact either [Kate Veraldi](#), Director for Student Services at The Graduate School, or [Andreas Matouschek](#), Associate Dean for Student Services at The Graduate School.

Northwestern University has in place a number of policies that clearly demonstrate our commitment to research integrity. These collectively apply to all members of Northwestern's research enterprise: students/trainees, staff and faculty. To see a complete listing of these policies [click here](#)

### **RCR Resources**

[CTSpedia online RCR Resources](#)

[Federal Office of Research Integrity](#)

[National Institute of Health guidelines on RCR Training Requirements](#)

[National Science Foundation guidelines on RCR Training Requirements](#)

[RCR training available at Northwestern University](#)

[Responsible Conduct of Research by: Adil E. Shamoo, David Resnik](#)

["The Lab", an interactive movie on research misconduct created by Federal ORI](#)

[Online Ethics Center](#)

# Northwestern Engineering

## Interdepartmental Correspondence

Office of the Senior Associate Deans  
McCormick School of Engineering & Applied Science  
Northwestern University  
June 24, 2010

### Responsible Conduct of Research (RCR) Training Policy

Effective January 4, 2010, the National Science Foundation (NSF) has mandated that, at the time of proposal submission, the institution must have a plan to provide appropriate RCR training and oversight to all students (undergraduates, graduates and post-docs) who will be supported by NSF to conduct research. To meet this mandate, the McCormick School will implement the following program beginning Fall 2010 for different categories of students and post-docs.

#### Graduate Students

All graduate students, whether supported on NSF grants or not but excluding those who have completed ethics training under an NIH training grant, will be required to fulfill the following requirements.

- Complete the following modules of the online CITI course and obtain a passing grade of at least 80% on the accompanying quizzes. (Individual departments may require their students to complete additional modules.)
  - Module 1: Introduction to the Responsible Conduct of Research
  - Module 2: Research Misconduct
  - Module 4: Responsible Authorship in Engineering
  - Module 5: Ethical Issues in Peer Review and Publication in Engineering Research
  - Module 8: The Ethics of Mentoring
  - Module 11: Ethical Issues in the Management of Data in Engineering Research
- Attend all the seminar discussion sessions organized by the student's department.
- All matriculating students beginning Fall 2010 must complete the online CITI course before the beginning of the Fall quarter of the following academic year.
- All students supported on NSF research grants that were submitted, or due, on or after January 4, 2010, must complete the online CITI course within the first quarter of receiving the support and submit the certificate of completion to the department business administrator (BA) or the BA's designee (typically the

- graduate program coordinator). If a student has not completed the course, then his/her funding will be put on hold until this requirement is met.
- Students must attend the seminar discussion sessions at the first available opportunity after completing the CITI course.
  - It is the responsibility of the principal investigators of NSF grants to inform the graduate students about the RCR training requirement.

### **Post-Doctoral Researchers**

- All post-doctoral researchers, regardless of their source of funding but excluding those who have completed ethics training under an NIH training grant, must fulfill the same requirements as graduate students of the same department.
- All post-doctoral researchers supported on NSF research grants that were submitted, or due, on or after January 4, 2010, must complete the online CITI course in the first month of employment and submit the course completion certificate to the department BA) or the BA's designee (typically the graduate program coordinator) in order to continue in their research appointment.
- It is the responsibility of the principal investigators of NSF grants to inform the post-doctoral researchers about the RCR training requirement.

### **Undergraduate Students**

Only those undergraduate students (whether McCormick or non-McCormick) receiving funding from NSF grants that were submitted, or due, on or after January 4, 2010 will be required to fulfill the following requirements.

- Complete the following modules of the online CITI course and obtain a passing grade of at least 80% on the accompanying quizzes. (Individual departments may require their students to complete additional modules.)
  - Module 1: Introduction to the Responsible Conduct of Research
  - Module 2: Research Misconduct
  - Module 11: Ethical Issues in the Management of Data in Engineering Research
- Undergraduate students will not be required to attend departmental seminar sessions (all McCormick undergraduate students receive ethics training in EDC courses).
- Undergraduate students must complete the online CITI course in the first month of employment and submit the course completion certificate to the department BA) or the BA's designee (typically the graduate program coordinator) in order to continue in their research appointment.
- It is the responsibility of the principal investigators of NSF grants to inform the undergraduate students about the RCR training requirement.

## **Faculty**

All faculty, especially those funded by NSF, are encouraged to complete the CITI online course. Faculty who lead the discussion sessions will be required to complete the CITI online course.

## **Administration of RCR Training**

- The Graduate School (TGS) will set up a six-module course) with CITI for McCormick graduate students and post-docs (as well as a three-module course for undergraduates). TGS will work with CITI to obtain direct downloads of the names of students and post-docs who have completed the course.
- TGS will create a common course number (e.g. TGS 513) that will be used by all departments for their discussion course. This will be a zero-credit course graded P/N based minimally on the attendance in the course.
- Annually, TGS will collect the list of all graduate students and post-docs who completed the CITI course and combine it with the list of those who completed the discussion course. TGS will then compare the list of graduate students and post-docs who fulfilled the training requirement with the list of those who received NSF funding that year. If an NSF funded graduate student or a post-doc has failed to fulfill the training requirement then TGS will inform that person and the school dean's office. The dean's office will terminate that person's funding if he/she fails to fulfill the requirement within one month after the notification from TGS.
- Specialized lab safety, animal handling, and human subjects courses are optional and are offered by the NU Office for Research Safety and the NU Office for the Protection of Research Subjects.

## **Useful Resources and Links**

- NSF FAQ: [http://www.nsf.gov/pubs/policydocs/rcr/faqs\\_mar10.pdf](http://www.nsf.gov/pubs/policydocs/rcr/faqs_mar10.pdf)
- CITI Program: <https://www.citiprogram.org/Default.asp?>
- NAE Online Ethics Center:  
<http://www.onlineethics.org/CMS/about/UserGuide/18848.aspx>
- University of Massachusetts Science, Technology and Society Initiative:  
<http://www.umass.edu/sts/digitallibrary/>

# DEPARTMENT OF LINGUISTICS NORTHWESTERN UNIVERSITY

## GRADUATE STUDENT HANDBOOK



2010-2011

## **WCAS Responsible Conduct of Research (RCR) Training Policy**

(version 2010-08-18)

### *Why do we introduce this policy?*

Effective January 4, 2010, the National Science Foundation (NSF) has mandated that, at the time of proposal submission, the institution must have a plan to provide appropriate RCR training and oversight to all students (undergraduates, graduates and postdocs) who will be supported by NSF to conduct research. To meet this mandate, Weinberg College will implement the following program beginning in Fall 2010 for categories of students and postdocs.

### *To whom does this policy apply?*

Initially this policy will apply to all WCAS departments/programs known to receive NSF funding: Anthropology, Molecular Biosciences (formerly BMBCB), Chemistry, Earth & Planetary Sciences, Economics, IBiS, Linguistics, Mathematics, NBP, Physics & Astronomy, Political Science, Psychology, Sociology, and Statistics. In addition, this policy will apply to students from any department or program who expect to make use of any NSF-supported facilities or equipment. Other students are encouraged to participate in this training. We expect to develop suitable modules for the humanities during the coming year. A form of this policy eventually may become mandatory for all students in WCAS.

### *What is this policy?*

#### Graduate Students

All graduate students subject to this policy will be obligated to fulfill the following requirements.

- Complete the following modules of the online <<https://www.citiprogram.org/>> CITI course and obtain a passing grade of at least 80% on the accompanying quizzes. Individual departments may require their students to complete additional modules.
  - Module 1: Introduction to the Responsible Conduct of Research Module
  - Module 2: Research Misconduct
  - Module 4: Responsible Authorship in Natural/Social Science
  - Module 5: Ethical Issues in Peer Review and Publication in Natural/Social Science Research
  - Module 8: The Ethics of Mentoring
  - Module 11: Ethical Issues in the Management of Data in Natural/Social Science Research
- Attend all of the face-to-face (e.g., seminar discussion) sessions organized by the student's department.
- All matriculating students must complete the online CITI course before the beginning of the Fall quarter of the following academic year.

- If a student is supported on an NSF research grant, then he/she must complete the online CITI course within the first quarter of receiving the support and submit the certificate of completion to the department business administrator (BA) or the BA's designee (typically the graduate program coordinator or DGS). If a student has not completed the course, then his/her funding will be put on hold until this requirement is met.
- Students must attend the face-to-face (e.g., seminar discussion) sessions at the first available opportunity after completing the CITI course.

#### Postdoctoral Researchers

All postdoctoral researchers subject to this policy must fulfill the same requirements as graduate students of the same department.

- All postdoctoral researchers subject to this policy must complete the online CITI course in the first month of employment and submit the course completion certificate to the department BA or the BA's designee (typically the graduate program coordinator or DGS) in order to continue in their research appointment.

#### Undergraduate Students

Only those undergraduate students receiving funding from NSF grants will be required to fulfill the following requirements.

- Complete the following modules of the online <<https://www.citiprogram.org/>> CITI course and obtain a passing grade of at least 80% on the accompanying quizzes. Individual departments may require their students to complete additional modules.
  - Module 1: Introduction to the Responsible Conduct of Research
  - Module 2: Research Misconduct
  - Module 11: Ethical Issues in the Management of Data in Natural/Social Science Research
- Undergraduate students will not be required to attend departmental seminar sessions.
- All undergraduate students supported on NSF grants must complete the online CITI course in the first month of employment and submit the course completion certificate to the department BA or the BA's designee (typically the undergraduate program coordinator or DUS) in order to continue in their research appointment.
- It is the responsibility of the principal investigators (PIs) of NSF grants to inform the undergraduate students about the RCR training requirement.

#### Faculty

Faculty, especially those funded by NSF or those who lead RCR discussion sections, are encouraged (but not required) to complete the CITI online course.

#### Administration of RCR Training

- The Graduate School (TGS) will set up a six-module course with CITI for Weinberg graduate students and postdocs (a three-module course for

- undergraduates). TGS will work with CITI to obtain direct downloads of the names of students and postdocs who have completed the course
- TGS will create a common number (e.g., TGS 519) that will be used by all departments for their discussion course. This will be a zero-credit course graded P/N based minimally on the attendance in the course.
  - Annually, TGS will collect the list of all graduate students and postdocs who completed the CITI course and combine it with the list of those who completed the discussion course. TGS will then compare the list of graduate students and postdocs who fulfilled the training requirement with the list of those who received NSF funding that year. If an NSF funded graduate student or a postdoc has failed to fulfill the training requirement then TGS will inform that person and the school dean's office. The dean's office will terminate that person's funding if he/she fails to fulfill the requirement within one month after the notification from TGS.
  - Specialized lab safety, animal handling and human subjects courses are optional and are offered by the NU Research Safety Office

#### Exceptions

Departments/programs may choose to opt out of the on-line CITI program component if they offer an extensive, formal RCR class. Such a class should consist of at least eight one-hour discussion sessions covering the appropriate subjects. (We believe that IBiS and NUIN currently do this and that Chemistry may be planning to do this.) Approval of the formal RCR class by both WCAS and TGS will be required in order to waive the CITI component.

**Department of Linguistics**  
**Responsible Conduct of Research (RCR) Training**

The Linguistics Department-based face-to-face component will consist of a faculty-led seminar series with the following specifications:

Days of Course Meeting (e.g., TuTh)	Wednesday
Times of Course Meeting (e.g., 9:00-10:20am)	12 noon – 1pm
Place of Course Meeting (e.g., Tech LR2)	Cresap 101
Type of Course (probably "Seminar", unless you prefer "Lecture")	Seminar
Instructor of Record (e.g., your DGS)	DGS (AY 2010-2011): Janet Pierrehumbert

- We will run 7 RCR seminars per year, with each of our permanent faculty leading one seminar.
- Useful resources
  - From Craig Bina: two sites whose development was funded by NSF to help others develop their own RCR training activities.
    - University of Massachusetts:  
<<http://www.umass.edu/sts/digitallibrary/>>
    - National Academy of Engineering:  
<<http://www.onlineethics.org/CMS/about/UserGuide/18848.aspx>>

# Responsible Conduct of Research (RCR)

## NSF Requirements

The NSF requires the university to certify that it has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who receive NSF support to conduct research. Certification of university compliance is done by an authorized OSU representative as part of the institutional proposal approval process (e.g. when a sponsored program officer submits the proposal in FastLane). Specific instructions are found in Chapter IV.B Responsible Conduct of Research (RCR) of the [NSF Proposal and Award Policies and Procedures Guide](#).

## Required Instruction

All students and postdoctoral researchers supported by NSF sponsored projects resulting from proposals must complete the CITI online course in the Responsible Conduct of Research. Within 60 days of appointment, students and postdocs must complete the most relevant discipline specific CITI RCR course (Biomedical Research, Social and Behavioral Research, Physical Science, Humanities, or Engineering). Instructions for accessing the CITI RCR course are found [here](#).

Principal investigators (PIs) should not include any specific information on RCR training within their proposals. NSF does not want program details – only the institution’s certification that there is a program in place.

The PI is responsible for ensuring that all students and post docs complete the CITI RCR course. The PI should direct the trainees to the most appropriate discipline specific RCR course within the CITI program. The PI is also encouraged to complete the CITI RCR training and begin a dialogue with students and postdocs on the responsible conduct of research.

The PI must maintain records to document that each trainee has completed the CITI RCR course. Training records are subject to monitoring by the Office of Research Compliance and by NSF auditors.

## Instructional Resources

- Several examples from an increasing number of instructional resources follow:
- Council of Graduate Schools [Project for Scholarly Integrity](#)
- National Postdoctoral Association [RCR Toolkit](#)
- HHS Office of Research Integrity [Multimedia RCR Resources](#)
- The National Academies [On Being a Scientist, A Guide to Responsible Conduct of Research \(Third Edition\)](#)

## Responsible Conduct of Research Training

As of January 4, 2010, NSF requires that all undergrads, graduate students and postdocs paid on NSF grants receive appropriate training in the Responsible Conduct of Research. *This does not have to be addressed in the body of your NSF grant proposal.* Rather Penn State will “complete a certification that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research.” (From NSF 10-1, Jan. 2010 Grant Proposal Guide, II.C.1.e.)

The [PSU Office of Research Protections \(ORP\)](#) oversees this training and as of Fall 2009, all incoming graduate students receive this training. *It will be your responsibility to see that all students and postdocs supported by your new NSF grants receive comparable training.* A plan will need to be sent to Sharon Shriver for your postdocs, undergraduate students, and any senior graduate students that have not already received the training. ORP will then be in a position to provide the required verification that all of these individuals have received proper RCR training. The **Scholarship and Research Integrity (SARI)** web site has more information on ethics training relevant to NSF grants, numerous resources, and links to text you can use in proposals if you wish.

You should plan on the training including the online RCR course that is currently required of our graduate students and is open to anyone (<http://www.research.psu.edu/orp/sari/>) and at least 3 hours of discussion-based training. There are several options you can use for the discussion based training:

- ◆ Have your personnel participate in some of the discussion-based training your department provides to incoming grad students.
- ◆ ORP also offers regular workshops and training opportunities
- ◆ You can conduct this discussion-based training yourself for your lab group (formal discussions about authorship, responsible data reporting, plagiarism, etc are often natural topics for lab meetings).

If you have any questions about this, contact Sharon Shriver ([sps10@psu.edu](mailto:sps10@psu.edu)) and she will assist you in meeting with this new NSF requirement.

<http://www.research.psu.edu/orp/sari/>



## SARI Statement for Grant Proposals

If applying for NSF funding, you must include this statement to certify that Penn State has a plan for RCR training and oversight of students who will be participating in the proposed research.

The National Science Foundation published a notice on August 20 that it is now implementing Section 7009 of the America COMPETES Act. The notice is available at <http://edocket.access.gpo.gov/2009/E9-19930.htm>.

Effective January 4, 2010, NSF will require each institution that applies for NSF funding to certify that the institution has a plan for RCR training and oversight of students who will be participating in the proposed research. SARI will meet these requirements, and although our SARI program targets graduate students, the components for RCR training that are in place will be suitable for, and available to, undergrads and postdoctoral fellows (who are included in the NSF requirement).

Please feel free to copy and paste the language below in your grant proposals, or anywhere that a description of the SARI Program is required. As always we will be happy to provide assistance or answer questions; just contact [sari@psu.edu](mailto:sari@psu.edu).

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*Penn State's Scholarship and Research Integrity (SARI) program is designed to offer graduate students comprehensive, multilevel training in the responsible conduct of research (RCR), in a way that is tailored to address the issues typically faced by individual disciplines. SARI programs address topics such as publication practices and responsible authorship, conflicts of interest, research misconduct, peer review, mentoring, data management, collaborative research, human subjects protections, and animal welfare. In general, SARI programs address these issues through two initiatives: an online RCR training program offered by CITI (Collaborative Institutional Training Initiative) to be completed in the first year of graduate study, followed by five hours of discussion-based RCR education. All graduate students at Penn State, who matriculated in fall of 2009 or later, are required to complete the SARI requirements prior to graduation.*

*Graduate programs at Penn State submitted proposals for implementing the SARI program in a way that meets the particular needs of students in each unit. Each plan includes provisions for notifying students of the requirement, for meeting both the online and discussion-based parts of the training, and for monitoring student participation. SARI program plans were reviewed and approved by the Office for Research Protections, which maintains annual records of student participation and provides oversight for the program. Additional information, including copies of SARI training plans and student participation reports, are available from the Office for Research Protections upon request.*

office of the vice president for  
**RESEARCH AT PENN STATE**

## SARI Program Portal



The SARI program at Penn State is designed to offer graduate students comprehensive, multilevel training in the responsible conduct of research, in a way that is tailored to address the issues faced by individual disciplines.

- Online Training Program through CITI
- SARI Program Plan Development for Colleges
- SARI Statement for Grant Proposals
- SARI Newsletters and Announcements
- About SARI
- Teaching Tools
- Frequently Asked Questions
- SARI@PSU Program

[Sample Tracking Form - Due on June 15th](#)

NEW for fall 2011! [Click on the image for more information](#)





## Office of the Vice President for Research

### Responsible Conduct of Research Education Plan

Purdue University Education Plan to Satisfy the Requirements of NSF's Implementation of Section 7009 of the America COMPETES Act (42 U.S.C. 1862o-1)

#### Background

Section 7009 of the America COMPETES Act requires 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."

#### NSF's Implementation Plan [74 FR 42126-42128 (August 20, 2009)]:

"Effective January 4, 2010, NSF will require that, at the time of proposal submission to NSF, a proposing institution's Authorized Organizational Representative certify that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research. While training plans are not required to be included in proposals submitted to NSF, institutions are advised that they are subject to review upon request. NSF will formally implement the new RCR requirement via an update to the NSF Proposal and Award Policies and Procedures Guide (PAPPG). It is anticipated that the revisions to the PAPPG will be issued on October 1, 2009. NSF also will modify its standard award conditions to clearly stipulate that institutions are responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received RCR training."

#### Purdue University Training Plan to Satisfy NSF Requirement for Responsible Conduct in Research Education

##### 1. Administration

The Vice President for Research and Dean of the Graduate School have assigned responsibility to the OVPR Office of Research Administration to coordinate implementation and oversee compliance with the NSF Requirement for RCR Education. Associate Vice President for Research Peter Dunn and an Associate Dean of the Graduate School (TBD) will serve as co-chairs of a faculty advisory committee which will periodically review and recommend improvements to this University Responsible Conduct of Research Education Plan. This faculty advisory committee will include representation from the college/school Associate Deans for Graduate Education (Graduate School GEA Committee) and NSF-supported faculty whose projects are subject to the Education Plan.

##### 2. Undergraduates

Undergraduates to be supported from an NSF project submitted to the sponsor on or after January 4, 2010 must successfully complete online undergraduate core training in the responsible conduct of research (RCR) consisting of online CITI modules on research misconduct, conflict of interest, and data acquisition and management. This requirement must be completed and documentation provided to the hiring department prior to employment. Undergraduates are encouraged to complete the remainder of the CITI online RCR curriculum and to attend seminars/workshops on the responsible conduct of research offered at Purdue University.

##### 3. Graduate Students and Postdoctoral Researchers

During the first month of support, graduate students and postdoctoral researchers supported by funds from the NSF must successfully complete online graduate core training in RCR. This core training will consist of successful completion of one of the four CITI online RCR courses: Biomedical, Physical Science, Social and Behavioral, or Humanities. Each of these courses consists of modules on research misconduct, conflict of interest, data acquisition and management, responsible authorship, responsible peer review, collaborative research, mentoring, and Purdue University policies and procedures (to be developed). In addition, graduate students and postdoctoral researchers supported by NSF funds are required to engage in additional discussion-based RCR education during the first year of support by NSF funds. The specific method to satisfy this requirement for discussion-based RCR education will be determined by the student's graduate program or by the postdoctoral researcher's mentor. Graduate programs and postdoctoral mentors, respectively, will be responsible for maintaining auditable documentation of each graduate student's or postdoctoral researcher's completion of discussion-based RCR education.

##### 4. Resources

Information about Purdue courses and workshops addressing the ethical and responsible conduct of research can be found on the Graduate School's [Responsible Conduct of Research web site](#). To access the CITI online courses in the Responsible Conduct of Research referenced in the Purdue RCR Education Plan, please click [here](#).

#### Recordkeeping Assistance

[RCR Tracking Form 2012](#)

#### Direction for Online RCR Training

[RCR Quick Reference Card](#)

## Integrity

[Conflict of Interest](#)

[Research Records](#)

[Responsible Conduct of Research](#)

[Intellectual Property](#)

[Freedom of Inquiry](#)

[Scholarly Communication](#)

[Purdue Hotline](#)

## Regulatory

[Human Research Protection Program](#)

[Care & Use of Animals](#)

[Biohazards and rDNA](#)

[Radiation/Lasers](#)

[Controlled Substances](#)

[Export Control](#)

## Contact Information

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**Sherri Neibert**

Phone: (765) 494-6840

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Purdue University, West Lafayette, IN 47907 USA, (765) 494-4600

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If you have trouble accessing this page because of a disability, please contact [OVPR@purdue.edu](mailto:OVPR@purdue.edu).

Inquiries or comments: [OVPR@purdue.edu](mailto:OVPR@purdue.edu)

[Skip to content](#) [Skip to navigation](#)

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- [Gateways For:](#)
- [Prospective Students](#)
- [Current Students](#)
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- [Graduate Advising](#)
- [Academic Calendar](#)
- [Stanford Bulletin](#)
- [Applying to Graduate Study at Stanford](#)
- [Graduate Academic Policies & Procedures Handbook](#)
- [Site Index](#)

## Notable:

- [Grad Student Funding Fundamentals](#)
- [10 Resources for Grads](#)
- [2011 VPGE Fellowship Recipients](#)



Quad Detail

## Responsible Conduct of Research (RCR)

The education of Stanford students at all levels includes appropriate training and oversight in the responsible and ethical conduct of research. Stanford

University expects that every academic program and each research advisor/mentor will do their part to assure that students/trainees receive appropriate guidance in such areas as: research integrity, data acquisition and management, authorship, research collaborations, conflicts of interest, and others as appropriate.

In addition, two of the largest US sponsors of research have established regulatory requirements in this regard. The National Institutes of Health (NIH) has long required RCR education for anyone funded on their training grants. More recently, the National Science Foundation (NSF) has established an RCR training requirement for students at any level funded by that agency.

## On this page:

- [Stanford Resources](#)
- [Addressing Regulatory Requirements](#)
- [Other Questions](#)

## Stanford Resources

Stanford University provides information and resources as part of its commitment to the responsible and ethical conduct of research. Some of these are linked here. All links below will open in a separate browser window.

### University policies (from the [Research Policy Handbook](#))

- [Principles Concerning Research](#)
- [Academic Authorship](#)
- [Research Misconduct \(Allegations, Investigations and Reporting\)](#)
- [Openness in Research](#)
- [Retention of and Access to Research Data](#)
- [Fiscal Responsibilities of Principal Investigators](#)
- [Faculty Policy on Conflict of Commitment and Interest](#)

In addition, The [University Code of Conduct](#) is applicable to all faculty, staff and students at Stanford University.

## Stanford Courses and Other Training

- [MED 255: Responsible Conduct of Research](#)  
This one-quarter Stanford course is offered through the Stanford Center for Biomedical Ethics.
- [CITI Modules on Responsible Conduct of Research](#)  
These web-based modules have been developed by the Collaborative Institutional Training Initiative (CITI). There are five disciplinary tracks available:
  - Humanities
  - Social and Behavioral Science
  - Natural Science
  - Bioscience
  - Engineering.

## Stanford Centers

Several academic units within Stanford focus on the study of ethics, including ethical issues in the conduct of research. Two are linked here:

- [Center for Ethics in Society](#) (within the School of Humanities and Sciences)
- [Stanford Center for Biomedical Ethics](#) (within the School of Medicine)

#### Other Stanford resources

- [Stanford Honor Code](#)
- [Guidelines for Advising Relationships between Faculty Advisors and Graduate Students](#)
- [Tips for Managing Conflicts](#) (from the annual faculty certification process related to outside professional activities)

### Addressing Regulatory Requirements

The National Institutes of Health (NIH) requires that all applications for Institutional National Research Service Award (NRSA) Research Training Grants (T32, T34) include a description of a program to provide instruction in the responsible conduct of research. **COMPLETION OF THE MED 255 CLASS SATISFIES THE NIH REQUIREMENT FOR TRAINING IN THE RESPONSIBLE CONDUCT OF RESEARCH.**

The National Science Foundation requires that, at the time of proposal submission, the institution has a plan to provide appropriate Responsible Conduct of Research training and oversight to all students (undergraduates, graduate, and postdocs) who will be supported by NSF to conduct research. **COMPLETION OF EITHER THE MED 255 CLASS (for those studying in the Biosciences) OR ONE OF THE CITI DISCIPLINARY TRACKS SATISFIES THE NSF REQUIREMENT FOR TRAINING IN THE RESPONSIBLE CONDUCT OF RESEARCH.**

### Other Questions?

Two sets of Frequently Asked Questions are attached to this web page:

- [FAQs concerning RCR Curriculum, Resources and Requirements](#)
- [FAQs concerning Accessing and Completing the CITI RCR Modules](#)

Other questions may be directed to the [Assistant Dean, Research and Graduate Policy](#).

[Contact](#) | [Directories](#) | [Maps & Directions](#)

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- [Site Index](#)

## Notable:

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- [10 Resources for Grads](#)
- [2011 VPGE Fellowship Recipients](#)



Quad Detail

## Frequently-Asked Questions about the Responsible Conduct of Research (RCR)

### On this page:

1. [What topics are included in RCR curriculum?](#)
2. [What are the federal regulations on this?](#)
3. [I am funded by the NSF? When do I need to complete an RCR module?](#)
4. [How do I access the CITI modules?](#)

#### 1. RCR Curriculum

The following topics are generally included in RCR curriculum:

- Research integrity
- Data acquisition and management
- Authorship
- Peer review
- Conflicts of Interest
- Mentoring
- Protection of research subjects
- Collaborative research practices
- Mentoring

Different disciplinary areas may also have their own topics related to research conduct in the discipline.

#### 2. Federal Regulations

##### **NATIONAL SCIENCE FOUNDATION**

Section 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act establishes a requirement for RCR training as follows:

"The Director shall require that each institution that applies for financial assistance from the [national science] 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."

A student funded by the NSF can satisfy this training requirement by completing a Stanford course on the Responsible Conduct of Research, i.e., MED 255, or by completing one of the [CITI courses on the Responsible Conduct of Research](#).

##### **NATIONAL INSTITUTES OF HEALTH**

Since July 1990, the NIH has required all applications for Institutional National Research Service Award (NRSA) Research Training Grants (T32, T34) to include a description of a program to provide instruction in the responsible conduct of research.

A trainee on an NIH Training Grant can satisfy this training requirement by enrolling in and completing the requirements for [MED 255, Responsible Conduct of Research](#). Note that completion of one of the CITI modules does NOT satisfy the NIH requirement.

3. **I am funded by the NSF. When do I need to complete an RCR module.**

Students who are funded by the National Science Foundation, e.g., students with NSF fellowship or paid as an RA on an NSF research project, are required to complete the appropriate RCR module within the first quarter of their funding.

4. **CITI Modules**

[Information about accessing and completing the CITI modules](#) is available on a separate page within this site.

Back to [Responsible Conduct of Research](#)

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# University of Arkansas

## Vice Provost for Research and Economic Development

### **Responsible Conduct of Research**

#### **Policies & Procedures**

- Research and Scholarly Misconduct Policies and Procedures  
([http://rssp.uark.edu/compliance/conduct/policy/research\\_scholarly\\_misconduct.pdf](http://rssp.uark.edu/compliance/conduct/policy/research_scholarly_misconduct.pdf))
- Outline for an Inquiry/Investigation Report for ORI [PDF]  
([http://rssp.uark.edu/compliance/conduct/policy/Outline\\_for\\_Report\\_for\\_ORI.pdf](http://rssp.uark.edu/compliance/conduct/policy/Outline_for_Report_for_ORI.pdf))

#### **Disclosure Forms**

- UA Policy 404.0 - Annual Report on Outside Employment, Form [PDF]  
(<http://vcfa.uark.edu/Documents/4040FormC.pdf>)
- UA Policy 404.0 - Disclosure of Potential Conflict of Interest and Commitment, Form [PDF] (<http://vcfa.uark.edu/Documents/4040FormA.pdf>)
- UA Policy 404.0 - Disclosure of Potential Conflict of Interest and Outside Employment [PDF] (<http://vcfa.uark.edu/Documents/4040.pdf>)
- Disclosure of Financial Interests Related to Sponsored Projects  
(<http://rssp.uark.edu/compliance/conduct/forms/disclosureint1.pdf>)

#### **Resources**

Office of Research Integrity (<http://ori.hhs.gov/>)

- Office of Research Integrity Policies & Regulations (<http://ori.hhs.gov/policies/>)

#### **Relevant Publications**

- Patricia Keith-Spiegel, Joan Sieber, & Gerald P. Koocher; "Responding To Research Wrongdoing: A User-Friendly Guide" ([http://www.ethicsresearch.com/images/RRW\\_7-17-10.pdf](http://www.ethicsresearch.com/images/RRW_7-17-10.pdf)); July 8, 2010.
- Brian C. Martinson, Melissa S. Anderson, & Raymond de Vries; "Scientists behaving badly;" *Nature* **435**, 737-738 (9 June 2005).

**Online training in the Responsible Conduct of Research is available through the Collaborative Institutional Training Initiative (CITI):**

1. Students may register at [www.citiprogram.org](http://www.citiprogram.org) (<http://www.citiprogram.org/>) as a person affiliated with the University of Arkansas Fayetteville. Request the RCR Course.
2. There are six modules and each take 30-35 minutes to complete.
  1. Research Misconduct

2. Data Acquisition and Management
  3. Responsible Authorship
  4. Mentoring
  5. Collaborative Research
  6. Conflicts of Interest
3. Upon completion, a notice will be sent to the Graduate School and a "Certificate of Training Completion" will be awarded.

▶ Jointly presented by:  
Vice Provost for Research  
and Economic Development  
and  
Graduate School and  
International Education



## Training in the Responsible Conduct of Research for Graduate Students

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A meal will be provided following each session.  
Series will be held in the Arkansas Union Theater (4th floor).

**Session 1** Wednesday, September 21, 2011, 3:30 – 5:00 pm

### **Introduction to Research Ethics**

Presenter: Dr. Dennis Brewer, Associate Vice Provost for  
Research and Economic Development

**Session 2** Wednesday, October 19, 2011, 3:30 – 5:00 pm

### **Authorship and Publication Issues**

Presenter: Dr. Doug Adams, Associate Professor of Sociology

**Session 3** Wednesday, November 9, 2011, 3:30 – 5:00 pm

### **Research Misconduct: Policies and Consequences**

Presenter: Rosemary Ruff, Director, Office of  
Research Compliance

Students who attend all three sessions will receive a paper  
certificate of training in the Responsible Conduct of Research.

These sessions are particularly important for new graduate  
students, but all graduate students, postdocs, and faculty are  
welcome.

▶ Please register to attend:

Diane Cook, Office of Graduate Student Activities  
479-575-2350 or [DLCOOK@uark.edu](mailto:DLCOOK@uark.edu)

## Revised NSF Responsible Conduct of Research Plan

Effective January 4, 2010, institutions applying for NSF research grants must have in place a plan for ensuring that students (undergraduate and graduate) and postdoctoral scholars supported by resulting awards receive education in the responsible and ethical conduct of research. UCLA's plan for providing this instruction includes creation of a required foundation course that will be delivered on-line. Individual Principal Investigators are encouraged to supplement this core course through discussion, reading, and other mentoring activities.

The UCLA RCR foundation course was developed by a faculty committee charged with designing a basic curriculum to be used by students and postdoctoral scholars across disciplines. The course focuses on ethical issues associated with research, and is based on the content of the recently published third edition of the National Academy of Sciences, "On Being a Scientist." Topics covered include advising and mentoring; treatment of data; mistakes and negligence; research misconduct; suspected violations of professional standards; protection of human participants and animal subjects in research; laboratory safety; sharing of research results; authorship and the allocation of credit; intellectual property; competing interests, commitments and values; and the researcher in society. Illustrative scenarios and quizzes are incorporated into the course. A section with references to regulations and to UCLA resources, policies, and procedures, is included. This on-line course will be made available through the University of California Learning Management System.

The Principal Investigator, all undergraduate and graduate students and postdoctoral scholars, and all other academic and staff appointees who are supported by NSF research grants and subawards will be required to take the course. Those who successfully complete it will receive certification that will be valid for two (2) years. Individuals who complete the course while supported on one NSF grant will not have to retake the course if they move to another NSF grant at UCLA within a two-year period. Individuals who may have previously completed an RCR course at another academic institution will be expected to complete the UCLA course.

Upon acceptance of NSF research support by the campus, the Principal Investigator will be notified of the NSF RCR course requirements.

UCLA's Vice Chancellor for Research will be responsible for overseeing compliance with the NSF RCR training requirement.

## UCLA Implementation of the NSF RCR Requirement - FAQs

### Q1. *Who is required to take this training?*

The federal America COMPETES Act requires that at a minimum, all students (undergraduate and graduate) and postdoctoral scholars supported under awards resulting from NSF proposals submitted on or after January 4, 2010 to support research or research training, receive formal education in the responsible and ethical conduct of research.

Under UCLA's implementation of the NSF requirements, *all* individuals supported by (that is, receiving salary or a stipend) these NSF awards are expected to complete the on-line RCR course that was developed by a UCLA faculty committee.

**Please note: The Principal Investigator and others who are working on an NSF project, but who do not receive salary or stipend support are *not* required to take the course. They are, however, encouraged to do so.**

### Q2. *How will people know that they must take the training?*

Employees, including Graduate Student Researchers and Postdoctoral Scholars who have been assigned department e-mail addresses, who are supported on an NSF award, and who are required to take the course, will receive an initial notice and several reminder e-mails via the UCLA Learning Management System (LMS). Other students (undergraduate and graduate) and Postdoctoral Scholars working on NSF grants will receive e-mail notifications that provide them with instructions about how to access the course through the LMS catalog.

### Q3. *When does the training need to be completed?*

The course should be completed as soon as possible after an individual begins receiving NSF support.

### Q4. *Where can the UCLA implementation plan be found?*

The UCLA implementation plan is posted on the Research Policy and Compliance website at:

<http://www.research.ucla.edu/researchpol/documents/RevisedPlanforNSFRCREducationalProgram.pdf>.

### Q5. *Can completion of other training be substituted for the UCLA NSF RCR course?*

No. The UCLA on-line course is required.

Individuals who may have completed an RCR course at another academic institution will be expected to complete the UCLA NSF RCR course. Individuals who have

completed the course while supported on one NSF award at UCLA will not have to retake the course if they move to another NSF award.

Please note that the RCR course is distinct from other training modules such as the use of human or animal research subjects.

*Q6. Is completion of the on-line RCR course all that is required to meet the NSF requirement?*

Yes. Completion of the course will fulfill the minimum NSF requirements. However, Principal Investigators are encouraged to augment this core course with additional reading, discussion and other mentoring and training activities.

*Q7. What does the course cover?*

The course is based on the National Academy of Sciences text *On Being a Scientist* (3<sup>rd</sup> edition), which can be downloaded at no cost. Instructions for downloading the text are given within the UCLA NSF RCR course. Topics covered include advising and mentoring; protection of research subjects; treatment of data; mistakes and negligence; research misconduct; sharing of research results; suspected violation of professional standards; laboratory safety; and authorship and the allocation of credit.

*Q8. How long will it take to complete the course?*

It should take an average of 2-2½ hours to complete the course. The course does not have to be completed in a single log-on session. If an individual leaves the on-line training session before completing it, LMS will remember where the session was interrupted and will start from there.

*Q9. Can an individual retake the course once it has been completed?*

Yes. The completed course can be revisited at any time as long as an individual has access to LMS.

*Q10. What is the America COMPETES Act?*

The America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act, otherwise known as the America COMPETES Act, was signed into law on August 9, 2007. The overarching goals of the America COMPETES Act are to increase research investment; strengthen educational opportunities in science, technology, engineering and mathematics from elementary through graduate school; and develop an innovative infrastructure.



THE UNIVERSITY OF  
**CHICAGO**

University  
Research  
Administration

## NSF CERTIFICATION REQUIREMENT IN THE RESPONSIBLE CONDUCT OF RESEARCH (RCR)

### GUIDELINE

Each Division/Unit at the University of Chicago is charged with the responsibility to develop a plan to provide appropriate education and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers within the Division/Unit who will be supported by NSF to conduct research. The University supports the use of the web based training program of The Collaborative Institutional Training Initiative (CITI Program) to satisfy the RCR education requirement, but advises individuals to check first with their Division/Unit for specific guidance.

### BACKGROUND

From the NSF Proposal & Award Policies & Procedures Guide (PAPP) January 2010: The responsible and ethical conduct of research (RCR) is critical for excellence, as well as public trust, in science and engineering. Consequently, education in RCR is considered essential in the preparation of future scientists and engineers. Section 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (AMERICA COMPETES) Act (42 U.S.C. 1862o-1) requires 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."

### INSTITUTIONAL RESPONSIBILITY

It is ultimately the responsibility of the Principal Investigator of an NSF-sponsored project to assure compliance with the RCR requirement for all undergraduates, graduate students, and postdoctoral researchers working on his/her project. Division plans have been communicated to the faculty and most have been posted to their websites.

For those Units of the University which receive very limited NSF funding, URA will inform the PI at the time of NSF proposal submission that RCR education is required should an award be made, and they will be directed to the appropriate CITI website and RCR program based on their discipline. NSF awardees will also be reminded of the RCR education requirement by email when NSF awards are received. The Associate Vice President for Research Administration will act as primary contact with NSF.

Should you have questions, please contact [Carol Zuches](#), 773-702-8604.

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University Research Administration  
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September 4, 2011

Biological Sciences Division  
Responsible Conduct in Research

The following outlines the BSD plan to ensure appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, and postdoctoral researchers participating in NSF supported research projects.

Principal investigators submitting proposals to the National Science Foundation will ensure that graduate, undergraduate and postdoctoral researchers included in their funding proposals have completed appropriate training in responsible and ethical conduct of research. PI's are required to certify completion of training in their proposals.

The following are the training opportunities and requirements for each category:

1. Undergraduates:

- The Master of the Biological Sciences Collegiate Division will notify undergraduates that they must complete training prior to being hired on any NSF grant in the BSD.
- Students will access the CITI RCR education module for training and provide certificate of successful completion to Principal Investigator prior to participating in a project.

<https://www.citiprogram.org/default.asp?language=english>

Select Biomedical Responsible Conduct of Research Course, Basic Course

2. Graduate Students:

- Attend a required course on "Scientific Integrity and Ethical Conduct of Research" in their first year.
- The Dean of Graduate Affairs will notify graduate students of the requirement.

3. Post Doctoral Researchers:

- Attend BSD Summer Seminar Series on Scientific Integrity and the Ethical Conduct of Research. A letter of attendance is provided at the end of the course.

Or

- Complete and pass on-line CITI RCR training module. (See #1 above)
- PI's will ensure that Post Docs complete this requirement prior to putting them on grants

This plan is effective for proposals submitted on or after January 4, 2010

**Computation Institute**  
**Training in the Responsible Conduct of Research (RCR)**  
**Effective Summer 2010**

The Grant Proposal Guide for the National Science Foundation, effective January 4, 2010, states the following: “The Authorized Organizational Representative is required to complete a certification that the institution has a plan to provide appropriate training and oversight in the responsible conduct of research (RCR) to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research.”

To meet this new NSF certification requirement, the Computation Institute (CI) submits the following plan - modeled after the plan developed by the Physical Sciences Division (PSD) - to assure University Research Administration that applicable individuals working on NSF grants receive the appropriate training.

General: For the most part, students will complete training through the guidelines set forth by their respective departments and therefore CI does not anticipate executing training for students. Postdoctoral researchers hired by CI will complete their training through the website of CITI -- the Collaborative Institutional Training Initiative ([citiprogram.org](http://citiprogram.org)), with a passing grade of at least 80%. The CI selected the set of core modules most important and relevant for their respective constituents to be tailored on the CITI website by the PSD Dean’s Office.

Undergraduates: RCR training will be required only of those undergraduate students who are hired to do research on an NSF grant. When a PI requests a new undergraduate hire for a specific grant, the CI HR Manager or Pre-Award Manager will inform the PI to direct the student to [citiprogram.org](http://citiprogram.org) to complete training. The student will have to submit his/her CITI completion certificate (printed from the CITI website) to the CI HR Manager, who will maintain in the student’s HR file and forward a copy to the PSD Local Business Center (LBC) before putting the individual on the payroll.

Graduate Students: RCR Training will be required of all graduate students in both BSD and PSD – regardless of funding source – either through a department-designed course (for Statistics), through the CITI website (all other PSD), or through a required course entitled ‘Scientific Integrity and Ethical Conduct of Research’ (BSD). For BSD and Department of Statistics graduate students, successful completion of their coursework will be posted on their transcripts at the end of the quarter. PSD graduate students that complete the online certification are required to submit evidence of successful completion to the PSD Dean’s office via their Student Service Representative. The PSD Dean’s office will ensure appropriate credit to the student transcripts at the end of the quarter. Graduate students will have to submit a copy of his/her transcript to the CI HR Manager who will maintain in the student’s HR file before putting allocating the student’s effort to an NSF-funded project.

*For Graduate Students who are currently enrolled as of Fall 2009, and who may be hired as an NSF research assistant on a grant submitted and awarded after January 2010*: the CI Pre-Award Manager will alert PI’s of the new requirement for CITI training. PI’s will direct students to complete CITI training and the student must submit their CITI completion certificate (or a signed syllabus in the case of Statistics or BSD) to the CI HR Manager, who will maintain in the CI HR file and forward a copy to the Local Business Center as proof of their eligibility to work on an NSF-sponsored project.

Post-doctoral Researchers: RCR training will be required of all post-doctoral scholars who are supported with NSF funds. After a post-doctoral researcher has accepted an offer, the CI HR Manager will notify the person by email of the expectations for CITI training, which may be completed before the start date or by the end of the first quarter of employment at the latest. Post-docs will be directed to submit completion certificates to the CI HR Manager. (NIH Fellowship recipients who attend BSD’s post-doctoral summer seminar on scientific integrity may submit proof of participation in lieu of CITI certification.) The CI HR Manager will be responsible for following up with postdocs to ensure completion of the RCR requirement.

The CI requires completion of the following modules (80% or better) of all post docs:

- Introduction
- Misconduct
- Data Management
- Authorship
- Conflict of Interest
- Collaboration and Communication
- Peer Review

Record Keeping: For the convenience of CI PI's, the CI HR Manager will maintain copies of appropriate documentation

**28 JANUARY 2010**

### **National Science Foundation Ethics Education Training Certification Policy**

**From NSF:** Effective January 4, 2010, NSF will require that, at the time of proposal submission to NSF, a proposing institution's Authorized Organizational Representative certify that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research. While training plans are not required to be included in proposals submitted to NSF, institutions are advised that they are subject to review upon request.

#### Humanities Division's Policy

1. All undergraduate students, graduate students, postdoctoral scholars, and postdoctoral fellows participating in research on grants from the National Science Foundation to the Humanities Division must undergo training in the responsible and ethical conduct of research and must certify completion of training *before* beginning work on the grant. The training for researchers in the Humanities Division is conducted online by the Collaborative Institutional Training Institute (CITI): <https://www.citiprogram.org/default.asp?language=english>. Participants receive certification of completion of training from CITI by email.
2. A copy of the certification email *must* accompany (or be on file for) all requests to the Humanities Division to add undergraduate students, graduate students, postdoctoral scholars, and postdoctoral fellows to NSF grant payroll. No appointments for payroll or for postdoctoral status on NSF-supported projects will be completed without a copy of training certification.
3. Principal Investigators (PIs) are responsible for providing proof of certification to the Humanities Division's Office of the Dean in the event that a postdoctoral scholar or fellow with an approved appointment begins work on research sponsored by the NSF.

**Division of Physical Sciences**  
**Training in the Responsible Conduct of Research (RCR)**  
**Effective Summer 2010**  
**Updated Spring 2011**

The Grant Proposal Guide for the National Science Foundation, effective January 4, 2010, states the following: “The Authorized Organizational Representative is required to complete a certification that the institution has a plan to provide appropriate training and oversight in the responsible conduct of research (RCR) to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research.”

To meet this new NSF certification requirement, the Physical Sciences Division (PSD) submits the following plan to assure the University Research Administration that PSD undergraduates, graduate students, and postdoctoral researchers receive the appropriate training

General: Most students and postdoctoral researchers will complete their training through the website of CITI -- the Collaborative Institutional Training Initiative ([citiprogram.org](http://citiprogram.org)), with a passing grade of at least 80%. Individual departments and research institutes selected the set of core modules and additional case studies that are most important and relevant for the respective constituents.

Undergraduates: RCR training is required only of those undergraduate students who are hired to do research on an NSF grant. When a PI requests a new undergraduate hire for a specific grant, the Faculty Service Representative will inform the PI to direct the student to [citiprogram.org](http://citiprogram.org) to complete training. The student will have to submit his/her CITI completion certificate (printed from the CITI website) to the Local Business Center (LBC) before being put on the payroll. The LBC will maintain these completion certificates along with the other documents related to the new hire.

Graduate Students: RCR Training is required of all graduates students – regardless of funding source – either through CITI, or (for statistics) through a department-designed course. Graduate students will be directed to complete the CITI program by the end of their first term, and will be given the option of completing it the summer prior to their first term. Students will be responsible for submitting their CITI certificate to the Student Service Representative in the department. Departments will use some or all of the following means to inform their students of the requirement: in the orientation materials initially sent to an accepted student; through direct email; in the graduate student handbook; during orientation week activities; on the departmental website; as a condition of graduation. Student service representatives will be responsible for following-up with students to ensure completion of the RCR requirement. Each month, a member of the Dean’s staff will download a list of CITI completers, which will be shared with LBC staff so they can check the status of a person’s training, if necessary. At the end of each quarter, Dean’s staff will send a CITI completion report to the Registrar’s office for posting to graduate student transcripts.

Post-doctoral Researchers: RCR training will be required of all post-doctoral scholars who are supported with NSF funds. Some departments and institutes within the PSD have decided to require RCR training of all scholars and fellows, regardless of funding source. (See table on following page.) After a post-doctoral researcher has accepted an offer, the department/institute administrator will notify the person by email of the expectations for CITI training, which may be completed before the start date or by the end of the first quarter of employment at the latest. Post-docs will be directed to submit completion certificates to department/institute administrators. Alternatively, post-docs may instead submit the following evidence of training in the responsible conduct of research:

- Proof of RCR training as a graduate student at another institution; or
- Proof of participation in BSD's post-doctoral summer seminar on scientific integrity.

Department administrators will be responsible for following up with postdocs to ensure completion of the RCR requirement.

REU students: Undergraduate students participating in REU programs will not be required to complete training from the CITI website. Instead, each REU program in the Division has designed a plan to meet NSF expectations for RCR training in a way that is most relevant to its students. (See page 5.) The REU PI will submit a copy of the RCR plan to the Local Business Center to secure the Direct Payment Voucher for REU participants.

Record Keeping: A member of the Dean's staff will do monthly downloads of all PSD CITI completions to date. These downloads will be stored in a webshare file so that authorized administrators (department/institute administrators, student service representatives, faculty service representatives, and other Dean and LBC staff) can access it as needed to check any individual's RCR completion status.

**Division of Physical Sciences**  
**Training in the Responsible Conduct of Research**  
**Departmental/Institute Plan Summaries**  
**Effective Summer 2010**

CITI Training Module Topics (X indicates topic is required)									
	Intro	Misconduct	Data Mgmt	Authorship	Mentoring	Conflict of Interest	Collab & Communcion	Peer Review	Notes
Astron/Astrophys	X	X	X	X		X		X	CITI; Required of <i>all</i> grads and postdocs
Chemistry	X	X	X			X			CITI; Required of <i>all</i> grad students and postdocs. Chemistry will also require two case study modules on plagiarism and data ownership.
Computer Science	X	X	X	X	X	X	X	X	CITI; Required of <i>all</i> grad students and postdocs.
Geophysical Sciences	X	X	X	X	X	X	X	X	CITI; Required of <i>all</i> graduate students and NSF-supported postdocs.
Mathematics	X	X		X	X	X	X	X	CITI; Required of <i>all</i> graduate students*
Physics	X	X	X	X	X	X	X	X	CITI; Required of <i>all</i> graduate students*
Statistics**	X	X	X	X	X	X	X	X	Topics will be covered in the mandatory Consulting Program for all graduate students and NSF-supported Post-docs.
Enrico Fermi Inst	X	X	X	X	X	X	X	X	CITI; Required of <i>all</i> post-docs*
James Franck Inst	X	X	X	X	X	X	X	X	CITI; Required of <i>all</i> postdocs*
Inst Biophys Dyn	X	X	X	X	X	X	X	X	All graduate students complete BSD course; CITI required of all postdocs
Cent Adv Rad Src	X	X	X	X	X	X	X	X	CITI: Required of all postdocs
<b>Undergraduates All Departments</b>	X	X			X		X		CITI; Required of NSF-supported research assistants. The four modules were recommended by PSD College Master John Frederick.
MRSEC REU**									MRSEC is developing their own online training program for REU students.
Math REU**				X	X				Topics will be discussed during mandatory REU meetings and final papers will show evidence of having learned proper authorship practices.

\*The math and physics departments do not have post-docs; EFI and JFI have postdocs only.

\*\*Details of the unique plan are provided on the following pages.

**Division of Physical Sciences**  
**Training in the Responsible Conduct of Research**  
**Details on Unique Departmental Plans**

**Department of Statistics**

Currently the Department incorporates ethics training into its mandatory Consulting Program (program participation is required by all degree-seeking graduate students in the department). As already constituted, the Program includes discussion of real situations and real problems, where a portion of the discussion relates to the responsible conduct of research in a collaborative setting. We plan to augment that discussion in a structured way, to ensure that the topics below are all included, by adding two sessions as needed to accomplish this. These training sessions are to be led by members of the department faculty. Attendance will be mandatory for PhD and Masters students, and NSF Postdocs\*. Each NSF Postdoc will be informed of this requirement in their appointment letter, and directed to attend by their PI. We currently have no NSF supported undergraduates, nor do we have plans for such, but should there be some, they too will be required by the supervising faculty member to attend the training. Records of attendance by PhD students in their first year, new Postdocs, and any NSF supported undergraduates will be kept in a department file.

Topics and Syllabus

1. Misconduct
  - plagiarism, falsification, fabrication and deliberate misrepresentation
2. Misjudgment or misconduct not rising to the level of academic fraud
  - standards for data analysis: acceptable standards/ carelessness/ ...
  - protocols for randomization in surveys and clinical trials
  - standards for early termination of trials
  - moving end-points, soft end points
  - side effects not foreseen in the protocol
  - financial interests and commercial pressures
3. Obligations and responsibilities of the data analyst
  - maintenance of adequate records to reproduce computations
  - documentation of code used for thesis computations
  - public availability of code and data
  - data management
  - graphical presentation: fair or misleading
4. Publication
  - Authorship, references, acknowledgments
  - Contribution to paper: footnote or joint authorship?
  - Citation of sources e.g. R or S packages and the specific methods
  - Peer review of papers or grant applications
5. Mentor relationships
  - Expectations, communications, responsibilities

\*Other Postdocs in the Department are supported by NIH. Those NIH grant awards have their own conditions for meeting RCR training requirements.

## **REU Students**

### Department of Mathematics

Each summer the Department supports approximately 100 undergraduate students in its 8-week REU program. During the program, students complete a variety of courses and write a paper that may be either expository or original research. Students also participate in regular meetings with graduate student mentors to discuss their papers and other REU activities. The focus of the RCR training will be on responsible authorship. Students will be given written guidelines on the appropriate preparation of the paper. The guidelines will explain the importance of acknowledging previous work and sources and acknowledging assistance from graduate student mentors and faculty. These matters, and the role of the graduate student mentors, will also be discussed at the mandatory meetings of all participants.

### Materials Research Science & Engineering Center (MRSEC)

Each summer, the Chicago Materials Research Center supports undergraduates in its 10-week REU program, which includes students from the REU grant to the Department of Physics. At the beginning of each summer's REU program, the Dean of the Physical Sciences Division will welcome the students and speak to them about relevant core topics in the responsible conduct of research, including research misconduct; data management; responsible authorship and peer review; conflicts of interest; and mentoring, communication, and collaboration skills.

## **Training in the responsible and ethical conduct of research for undergraduate students, graduate students, postdoctoral scholars, and postdoctoral fellows participating in research on its grants from National Science Foundation**

Recent legislation requires the National Science Foundation to verify that all undergraduate students, graduate students, and postdoctoral fellows participating in research on its grants have undergone training in the responsible and ethical conduct of research. By 1 January 2010, all Universities must have plans for the certification of training in the responsible conduct of research, and those plans must be made available to NSF on demand.

### Social Sciences Division

1. All undergraduate students, graduate students, postdoctoral scholars, and postdoctoral fellows participating in research on grants from the National Science Foundation must undergo training in the responsible and ethical conduct of research and must certify completion of training *before* beginning work on the grant. The training for researchers in the Social Sciences Division is conducted online by the Collaborative Institutional Training Institute (CITI): <https://www.citiprogram.org/default.asp?language=english>. Participants will receive certification of completion of training from CITI by email.
2. A copy of the certification email *must* accompany (or be on file) for all requests
  - a. To the Social Sciences Local Business Center (LBC) for addition to NSF grant payroll for undergraduate and graduate students (to the Department Administrator in the case of Economics);
  - b. To the Social Sciences Deans Office for appointment as postdoctoral scholar or postdoctoral fellow.

No appointments for payroll or for postdoctoral status on NSF-supported projects can be completed without a copy of training certification.

3. Principal Investigators (PIs) have the responsibility to demand that certification of training be presented to the Social Sciences Deans Office in the event that a postdoctoral scholar or fellow with an approved appointment begins work on research sponsored by the NSF.

November 12, 2009

# Research Administration

[University of Colorado at Boulder](#)

University of Colorado at Boulder CU: Home | Search | A to Z | Map

- [Home](#)
- [Interdisciplinary Research](#)
- [Funding Opportunities](#)
- [Sponsored Research](#)
- [Research Integrity and Regulatory Compliance](#)
  - [Animal Care and Use](#)
  - [Conflicts of Interest & Commitment](#)
  - [Controlled Substances](#)
  - [Export Controls](#)
  - [Human Research](#)
  - [Research Misconduct](#)
  - [Responsible Conduct of Research](#)
- [Research Faculty Appointments](#)
- [Electronic Research Administration](#)
- [Research Policies](#)
- [Reports and Strategic Planning](#)
- [Training](#)
- [About Us](#)

---

Search CU-Boulder



web  people

[Search Center](#) | [CU A to Z](#)

[Home](#) >> [Research Integrity and Regulatory Compliance](#) >> [Responsible Conduct of Research](#) >> NSF

- [About RCR](#)
- [NSF](#)
- [NIH](#)
- [Online Training](#)
- [Classroom Training](#)
- [Completion Form](#)

## NSF Requirement for Training in the Responsible Conduct of Research

In August of 2009, NSF announced that all applicant institutions are required to have a plan in place to provide appropriate training and oversight in the ethical and responsible conduct of research (RCR) to all undergraduate students, graduate students, and postdoctoral fellows who receive salary or stipend support from awards associated with NSF applications submitted on or after January 4, 2010.

NSF also requires all institutions to track and verify completion of RCR education for each trainee supported by NSF grant funds.

NSF does not specify the format, content or other details regarding the delivery of RCR education. Rather, NSF allows the institution to determine the appropriate RCR educational needs based on the individual's stage of training, research responsibilities and discipline.

Details as to the NSF statutory requirement, institutional and principal investigator responsibilities, most frequently asked questions (FAQ), and related information can be found at <http://www.nsf.gov/bfa/dias/policy/rcr.jsp> and related links. Note that exceptions to this requirement include NSF awards made solely for the support of conferences, symposia, workshops or travel.

### **CU-Boulder Plan for Meeting NSF Requirements**

All CU-Boulder research trainees or student employees supported by NSF grant funds can meet NSF requirements in one of two ways:

1. Complete the on-line course offered by the Collaborative Institutional Training Initiative (CITI). [See instructions >>](#)
2. Complete an interactive classroom-based course offered on the CU-Boulder or UC Denver Anschutz Medical campus. Students are required to take the course for credit and achieve a grade of B or higher. Postdocs may audit the course and request a letter of certification from the instructor. [See available courses >>](#) .

Upon completion of RCR training, please complete the CU-Boulder [RCR Completion Form](#). Sign the original and submit it to the RCR Coordinator (campus mailbox: UCB 26). Give a copy to your mentor/PI for the NSF-funded award, and keep a copy for your records.

### **Timeline for Completion of Training in RCR at CU-Boulder**

The **online** RCR training option should be completed within 90 days of the start of salary/stipend support from a NSF grant award. The **classroom-based course** option normally should be completed within 12 months of the appointment period on the NSF grant in question.

### **Questions?**

For questions concerning NSF RCR requirements, please **first** check the FAO link on the NSF RCR website described above and this [Federal Office of Research Integrity RCR FAO document](#) . Remaining questions can be addressed to the CU-Boulder RCR Coordinator at [rcr@colorado.edu](mailto:rcr@colorado.edu) .

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# Research Administration

[University of Colorado at Boulder](#)

University of Colorado at Boulder CU: Home | Search | A to Z | Map

- [Home](#)
- [Interdisciplinary Research](#)
- [Funding Opportunities](#)
- [Sponsored Research](#)
- [Research Integrity and Regulatory Compliance](#)
  - [Animal Care and Use](#)
  - [Conflicts of Interest & Commitment](#)
  - [Controlled Substances](#)
  - [Export Controls](#)
  - [Human Research](#)
  - [Research Misconduct](#)
  - [Responsible Conduct of Research](#)
- [Research Faculty Appointments](#)
- [Electronic Research Administration](#)
- [Research Policies](#)
- [Reports and Strategic Planning](#)
- [Training](#)
- [About Us](#)

---

Search CU-Boulder



web  people

[Search Center](#) | [CU A to Z](#)

[Home](#) >> [Research Integrity and Regulatory Compliance](#) >> [Responsible Conduct of Research](#) >> Classroom Training

- [About RCR](#)
- [NSF](#)
- [NIH](#)
- [Online Training](#)
- [Classroom Training](#)
- [Completion Form](#)

## Classroom Training on Responsible Conduct of Research at the University of Colorado

The following classes may be taken to complete the responsible conduct of research (RCR) requirements for the NIH or NSF.

To satisfy RCR requirements, students are required to take one of the following courses for credit and achieve a grade of B or higher. Postdocs may audit the course and request a letter of certification from the instructor.

Upon satisfactory completion of the course, students and postdocs must submit a "[Completion Form](#) ." Sign the original and submit it to the RCR Coordinator (campus mailbox: UCB 26). Give a copy to your mentor/PI for the NIH- or NSF-funded award, and keep a copy for your records.

**Note: Courses are *not* offered each semester, and ability to register or audit is subject to availability and permission of the instructor.**

**CU-Boulder campus:**

CHEM 5776  
Scientific Ethics and Responsible Conduct of Research (1 credit)

MCDB 5776  
Scientific Ethics and Responsible Conduct of Research (1 credit)

PSYC 5112  
Scientific Integrity and Responsible Conduct of Research (3 credits)

**Note:** The Graduate School will likely offer a non-credit course in the Fall of 2011. Check this website for further details after July 1, 2011.

**UC-Denver Anschutz Medical campus:**

CLSC 7150/51  
Ethics and Regulation of Human Subjects Review (1 credit)

CPBS 7605  
Ethics in Bioinformatics (1 credit)

IMMU 7607  
Science as a Profession (1 credit)

PHCL 7605  
Ethics in Research (1 credit)

TXCL-PHSC 7400  
Ethical Issues in Toxicology and Pharmaceutical Sciences (1 credit)

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# **Division of Sponsored Research**

## **UF Implementation of NSF's Requirement to Provide Responsible Conduct of Research (RCR) Training**

A new training requirement in the Responsible Conduct of Research (RCR) for NSF-funded undergraduates, graduate students, and postdoctoral researchers takes effect January 4, 2010. This new NSF regulation implements provisions of the America COMPETES Act.

The NSF guidelines can be found in detail in the January 2010 NSF Proposal and Award Policies and Procedures Guide, specifically in Part I - Grant Proposal Guide, Chapter II. C.1e (link: [http://www.nsf.gov/pubs/policydocs/pappguide/nsf10\\_1/gpg\\_2.jsp#IIC1e](http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/gpg_2.jsp#IIC1e)) and in Part II - Award and Administration Guide, Chapter IV.B. (link: [http://www.nsf.gov/pubs/policydocs/pappguide/nsf10\\_1/aag\\_4.jsp#IVB](http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/aag_4.jsp#IVB))

### **Certification at the Time of Proposal**

Beginning January 4, 2010, at the time of a NSF proposal submission, DSR will be required to complete a certification that states the University of Florida has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research.

### **The University of Florida's Plan to Provide Responsible Conduct of Research (RCR) Training**

The University of Florida is committed to providing undergraduates, graduate students and postdoctoral researchers with training in the responsible and ethical conduct of research. The current plan requires all undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research take the Training in Research Misconduct (link: [http://apps.research.ufl.edu/research/training/description.cfm#CC03.0\\_RATS-RACOC](http://apps.research.ufl.edu/research/training/description.cfm#CC03.0_RATS-RACOC)) class or PowerPoint presentation. If the research involves human subjects and is reviewed by the Institutional Review Board, then the IRB's Required Reading (link: <http://irb.ufl.edu/>) and HIPAA Training (link: <http://irb.ufl.edu/HIPAA/index.htm>) must be completed. If the research involves vertebrate animals and is reviewed by the Institutional Animal Care and Use Committee, then the IACUC's Training (link: <http://iacuc.ufl.edu/training.htm>) must be completed.

### **Verification of RCR Training**

The University of Florida is responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received training in the responsible and ethical conduct of research.

### **Principal Investigator's Responsibility**

To comply with this verification responsibility PI's must ensure that during the grant period undergraduates, graduate students, and postdoctoral researchers who join their NSF funded project take the RCR Training and provide the RCR Training Verification Document (link: [doc/rcr\\_training\\_verification\\_document\\_v1.doc](doc/rcr_training_verification_document_v1.doc)) to the Division of Sponsored Research or if the NSF grant is in the College of Engineering submit to the Office of Engineering Research.

## **At the time of NSF's Annual Grant Funding Increment:**





Upon receipt of NSF's annual grant funding increment, DSR and OER staff will be requesting from PI's any RCR Training Verification Documents that may not have been submitted during the grant period.

### **Questions**

If you have any questions please contact DSR's Tom Walsh (link: <mailto:twalsh@ufl.edu>) , Director of Sponsored Research and Compliance, Brian Prindle (link: <mailto:prindle@ufl.edu>) , Mike Scian (link: <mailto:scianmp@ufl.edu>) , or OER's Roslyn Heath (link: <mailto:rheath@eng.ufl.edu>) .

## Research Administration Training Series

We have not scheduled the Research Administration Training Series classes this year as we are working towards transitioning this program to UF's Human Resources on-line training opportunities. The PowerPoint's posted below remain relevant and you may review each at your own pace. At anytime if your department is interested in hosting a training session for one or all of these classes below please contact DSR's Helene Proulx (mailto:hproulx@ufl.edu) or Christina Moore (mailto:cmorre@ufl.edu) to schedule an individual training session.


<b>Overview of Research Administration-PreAward ()</b>	
Participants will gain knowledge of the various offices and personnel associated with preaward sponsored research management and will be able to identify appropriate individuals to contact for assistance. Presenter will be Brian Miller from the Sponsored Research Department.	
For questions hproulx@ufl.edu (mailto:hproulx@ufl.edu")	
Date\Time: TBA\	
Location:	 (/research/training/ppt/CC01.0_RATS-RACOC.ppt) ID: <b>CC01.0_RATS-RACOC</b>
Return to Schedule Page (schedule.cfm)	
<b>Topic 1: Research Misconduct and Topic 2: Conflict of Interest ()</b>	
Topic 1: Research Misconduct: It is the policy of the University that each individual faculty, staff member and student maintain high ethical standards in the conduct and reporting of their research. This segment will discuss responsible conduct of research from a variety of aspects. The continued education and heightened participant awareness of ethical issues, will contribute to fostering a "culture of compliance" within the University of Florida.	
Topic 2: Conflict of Interest: Participants will receive an overview of the Federal Regulations, State Statutes and University Rules that govern conflict of interest. The overall process flow and a team oriented approach to identification and resolution of conflict of interest situations, will be covered in this session. Furthering the awareness of situational and ethical issues surrounding conflict of interest will contribute to fostering a "culture of compliance" within the University of Florida.	
For questions hproulx@ufl.edu (mailto:hproulx@ufl.edu)	
Date\Time: TBA\	
Location:	 (/research/training/ppt/CC03.0_RATS-RACOC.ppt)  (/research/training/ppt/CC03.0_RATS-RACOC.2.ppt) ID: <b>CC03.0_RATS-RACOC</b>
Return to Schedule Page (schedule.cfm)	
<b>Technology Transfer: Patents and Licensing ()</b>	
Presented by Bruce D. Clary, Assistant Director, Office of Technology Licensing.	
Topic 1: The Office of Technology Licensing was established to work with university inventors to facilitate the transfer of technologies created at UF into the commercial sector for public use. A presentation of the overall process and contractual mechanisms used to support technology transfer at the university will be discussed.	
For questions hproulx@ufl.edu (mailto:hproulx@ufl.edu)	
Date\Time: TBA\	
Location:	 (/research/training/ppt/CC04.0_RATS-RACOC.ppt) ID: <b>CC04.0_RATS-RACOC</b>
Return to Schedule Page (schedule.cfm)	
<b>The IRB In-Depth The IACUC In-Depth ()</b>	
Presented by Michael Mahoney and Dorian Lucey.	

Topic 1: Presentation of policy and process regarding the Institutional Review Board for the protection of human subjects in research.

Topic 2: Presentation of policy and process regarding the Institutional Animal Care and Use Committee for the protection of animal subjects in research.

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\

Location:  (/research/training/ppt/CC05.0\_RATS-RACOC.ppt) ID: **CC05.0\_RATS-RACOC**

[Return to Schedule Page \(schedule.cfm\)](#)

#### Overview of Research Administration-PostAward ()

Designed to provide an overview of the "post-award" area within research administration, this workshop will explore key areas of responsibility so that faculty, department administrators, and other key research personnel will understand how these offices serve them in managing the sponsored program portfolio.

Date\Time: See HR Website\

Location: See HR Website ID: **PRO323**

[Return to Schedule Page \(schedule.cfm\)](#)

#### Budget Management for Sponsored Programs ()

Date\Time: See HR Website\

Location: See HR Website ID: **PRO343**


[Return to Schedule Page \(schedule.cfm\)](#)

#### Understanding the Award Process ()

Once a sponsor elects to fund a proposal, the negotiation and award acceptance process begins. This presentation walks you through that process through establishment of the Notice of Award (NOA).

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\

Location:  (/research/training/ppt/OPM01.0\_RATS-RACOC-PO.ppt) ID: **OPM01.0\_RATS-RACOC-PO**

[Return to Schedule Page \(schedule.cfm\)](#)

#### Cost Sharing and CAS Compliance Workshop -- Please Note Change of Date ()


Presented by Brian Prindle, Associate Director, Sponsored Research (CAS Compliance portion) and a Curtis Ball from the Contracts and Grants Office.

Topic 1: Appropriate for those responsible for departmental post-award contract and grant administration or for those who are Principal Investigators. This practical workshop includes a discussion on what cost sharing is and how to report it. Participants will learn how to recognize, monitor, and report cost sharing in a variety of ways. This workshop cuts through the confusing aspects of cost sharing, making compliance with agency rules, Cost Accounting Standards, OMB A-21, and university policies much easier.

Topic 2: Educational institutions with major federal contracts and grants are now required to comply with certain Cost Accounting Standards and to submit a Disclosure Statement which describes the institution's cost accounting practices as they relate to direct and indirect charges to Federally sponsored programs. This includes the practices followed by the institution's major service centers to develop and apply recharge rates for external and internal users of their services.

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\

Location:  (/research/training/ppt/OPM04.0\_RATS-RACOC-PO.ppt) ID: **OPM04.0\_RATS-RACOC-PO**

[Return to Schedule Page \(schedule.cfm\)](#)

#### Grant Funding Information, Agency Updates, Internal Funding Opportunities ()

Participants will be able to use web search tools to identify potential sources of funds and will be able to target searches by understanding the basic funding missions and programs of federal and state agencies. They will also understand how to post specific research interests to web browsers to access customized funding information. They will understand how the university supports small "pilot" projects and will be able to develop further search strategies based upon the handout of comprehensive web addresses.

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\

Location:



(/research/training/ppt/PDV01.0\_RATS-RACOC.PR.ppt) ID: PDV01.0\_RATS-

RACOC.PR

[Return to Schedule Page \(schedule.cfm\)](#)

#### Proposal Preparation, Processing and Review ()

Participants will be prepared to assist faculty in completing the proposal package, be knowledgeable in reading and interpreting guidelines, and will be cognizant of the university's processing requirements. They will be able to use the web to access current information regarding changes in preparation and submission processes.

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\

Location:



(/research/training/ppt/PDV02.0\_RATS-RACOC.PR.pdf)



(/research/training

/ppt/PDV02.0\_RATS-RACOC.PR.pptm) ID: PDV02.0\_RATS-RACOC.PR

[Return to Schedule Page \(schedule.cfm\)](#)

#### Building Realistic Budgets ()

Participants will be able to construct an effective project/program budget utilizing their knowledge of federal, state, and university requirements and will be able to determine how costs may be appropriately applied, transferred, and modified using these same criteria. Cost sharing also will be discussed. They will understand how to access additional information to identify accurate costs and will be able to utilize the web to maintain currency in regulatory changes affecting budget processes.

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\

Location:



(/research/training/ppt/PDV03.0\_RATS-RACOC.PR.ppt) ID: PDV03.0\_RATS-

RACOC.PR

[Return to Schedule Page \(schedule.cfm\)](#)

#### Contract Negotiation ()

Presented by Dr. Thomas Walsh, Director, Sponsored Research.

Many issues exist when a proposal is funded by a sponsoring agency. After a comprehensive review of the terms of an agreement, DSR coordinates with the PI, the college research offices, the accounting office, general counsel and the technology transfer office to ensure that the terms of the agreement will legally allow the institution to accept the agreement, allow the PI to carry out the work as planned, and minimize the financial and legal risks associated with conducting externally sponsored activities. This class will introduce key issues routinely seen in university contract negotiations. - Presented by Thomas Walsh, Ph.D.

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\

Location:



(/research/training/ppt/SPT002.0\_RATS-RACOC.ppt) ID:

SPT002.0\_RATS-RACOC






[Return to Schedule Page \(schedule.cfm\)](#)

#### Subcontracting - Pre and Post Award ()

Subcontracting is the acquisition of scientific or programmatic support under an award made to the University of Florida.

In this class you will learn about UF's subcontracting procedures, such as, what documentation is needed from the subcontractor at the time of proposal submission, how subcontract documents are prepared, the encumbrance process, and post award management of a subcontractor. In addition, participants will understand the differences between a subcontractor, a vendor, and a consultant.

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\
Location:  (/research/training/ppt/SPT003.0_RATS-RACOC.ppt) ID: <b>SPT003.0_RATS-RACOC</b>
<a href="#">Return to Schedule Page (schedule.cfm)</a>
<b>The Auditor's Perspective ()</b>
Auditor: a friend or a foe? Find out what your university auditors consider to be high-risk issues in sponsored research administration and accounting. There will be a discussion of audits performed, summary of common issues and findings and proactive best practices in higher education.
For questions <a href="mailto:hproulx@ufl.edu">hproulx@ufl.edu</a> (mailto:hproulx@ufl.edu)
Date\Time: TBA\
Location:  (/research/training/ppt/SPT005.0_RATS-RACOC.ppt) ID: <b>SPT005.0_RATS-RACOC</b>
<a href="#">Return to Schedule Page (schedule.cfm)</a>
<b>The ABC's of Property and Purchasing ()</b>
Presented by Lisa Deal, C.P.M, Purchasing Director and Faylene Welcome from Purchasing and Disbursements Services. Also presenting is David Segura, Assistant Controller, from Property.
This class will provide the opportunity to learn the function of these important areas, including information on who to contact, what is most important from a contract and grant administrators perspective, available tools and new developments. There will be an opportunity to ask questions. (Note: this does not replace the detailed "how to" classes that each of these areas offer)
For questions <a href="mailto:hproulx@ufl.edu">hproulx@ufl.edu</a> (mailto:hproulx@ufl.edu)
Date\Time: TBA\
Location:  (/research/training/ppt/SPT006.0_RATS-RACOC.ppt) ID: <b>SPT006.0_RATS-RACOC</b>
<a href="#">Return to Schedule Page (schedule.cfm)</a>
<b>Time &amp; Effort Reporting ()</b>
Presented by Grady Darden and Armando Ramirez from the Contracts and Grants Office. Activity Reporting: A description of the academic and non-academic online systems with a review of the definitions of activity categories. The importance of accurate reporting to insure that cost-sharing obligations are met.
For questions <a href="mailto:hproulx@ufl.edu">hproulx@ufl.edu</a> (mailto:hproulx@ufl.edu)
Date\Time: See HR Website\
Location: See HR Website  (/research/training/ppt/SPT007.0_RATS-RACOC.ppt) ID: <b>SPT007.0_RATS-RACOC</b>
<a href="#">Return to Schedule Page (schedule.cfm)</a>
<b>Elements of Good Proposal Writing ()</b>
Presented by Dr. Sobha Jaishankar, Assistant Vice President, Research.
Presented by Dr. Sobha Jaishankar she is an Assistant Vice President and Lecturer. This module will help principal investigators, especially new faculty, plan, write, and apply for basic training or research project grants. The focus will be on federal grants.
For questions <a href="mailto:hproulx@ufl.edu">hproulx@ufl.edu</a> (mailto:hproulx@ufl.edu)
Date\Time: TBA\
Location:  (/research/training/ppt/SPT008.0_RATS-RACOC.pptx) ID: <b>SPT008.0_RATS-RACOC</b>
<a href="#">Return to Schedule Page (schedule.cfm)</a>
<b>Export Controls Overview ()</b>

This module will help principal investigators and research staff obtain an understanding of export controls and how they apply to research and sponsored project endeavors.

For questions [hproulx@ufl.edu](mailto:hproulx@ufl.edu) (<mailto:hproulx@ufl.edu>)

Date\Time: TBA\

Location:



(/research/training/ppt/SPT009.0\_RATS-RACOC.ppt) ID:

**SPT009.0\_RATS-RACOC**

[Return to Schedule Page \(schedule.cfm\)](#)



[Research@UIC](#) >Responsible Conduct in Research (RCR)

## Responsible Conduct in Research (RCR)

“The scientific research enterprise, like other human activities, is built on a foundation of trust. Scientists trust that the results reported by others are valid. Society trusts that the results of research reflect an honest attempt by scientists to describe the world accurately and without bias. The level of trust that has characterized science and its relationship with society has contributed to a period of unparalleled scientific productivity. But this trust will endure only if the scientific community devotes itself to exemplifying and transmitting the values associated with ethical scientific conduct.”

National Academy of Sciences, *On Being a Scientist*, 1994.

Many research sponsors now require that all training grant recipients receive appropriate training and oversight in the responsible and ethical conduct of research.

### The NSF and the NIH state the following:

**NSF** – Responsible Conduct of Research (Section 7009): Institutions that apply for financial assistance from NSF for science and engineering research or education should include a plan in their grant proposals for appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, and postdoctoral researchers who will participate in the proposed research project. For more information please visit [http://ori.dhhs.gov/documents/newsletters/vol15\\_no4.pdf](http://ori.dhhs.gov/documents/newsletters/vol15_no4.pdf).

**NIH** – Since July 1990, the National Institutes of Health (NIH) has required all applications for Institutional National Research Service Award (NRSA) Research Training Grants to include a description of a program to provide instruction in the responsible conduct of research. All NRSA supported trainees must be provided an opportunity for training in the responsible conduct of research. For more information on these requirements, please visit [http://grants1.nih.gov/grants/policy/nihgps\\_2001/part\\_iib\\_4.htm#\\_Toc504812050](http://grants1.nih.gov/grants/policy/nihgps_2001/part_iib_4.htm#_Toc504812050).

If you are working with a different sponsoring agency, please read the program announcement carefully to determine the requirements of that particular sponsor.

In order to comply with RCR requirements, there are two options available at UIC: GC401 - Scientific Integrity and Responsible Research, offered by the Graduate College, or an on-line course, offered through the [Collaborative Institutional Training Initiative \(CITI\)](#).

CITI has designed and implemented a course for RCR that was partially funded by the Office of Research Integrity and DHHS. This comprehensive course is designed to meet Federal requirements for formal training in the responsible conduct of research. The new on-line course is now available for UIC members at <https://www.citiprogram.org>. Upon successful completion, a certificate will be provided.

The on-line course has multiple modules and covers the equivalent content to a full semester of instruction comparable to the Graduate College course, GC 401 - Scientific Integrity and Responsible Research. Register for the course and select from the following options.

**Group 1:** Biomedical Research Investigators and Key Personnel. If the focus of your research activities is primarily in the biomedical, biological, or health sciences in order to meet the initial education requirement you must complete the first 12 BioMed modules; to meet the continuing education requirements, you must complete the five refresher course modules.

[All plans - p. 90]

**Group 2:** Social / Behavioral Research Investigators and Key Personnel. If the focus of your research activities is primarily in the behavioral or social sciences in order to meet the initial education requirements, you must complete the 11 SBR modules; to meet the continuing education requirement, you must complete the five refresher course modules.

If you have any questions, please send an email to: [mlmoser@uic.edu](mailto:mlmoser@uic.edu)



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Have a suggestion for the site? Having problems accessing this site?  
[Contact the webmaster.](#)

Last updated: Wednesday, September 17, 2006

## Pimple, Kenneth

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**From:** Guenther, Howard R <hguenthe@illinois.edu>  
**Sent:** Thursday, September 22, 2011 11:11 AM  
**To:** Pimple, Kenneth  
**Cc:** Guenther, Howard R  
**Subject:** FW: Request for institutional plan for NSF RCR training and oversight  
**Attachments:** rio.rcr.training.nsf.sep2011.PI.letter.doc; rio.departmental.sep1311.letter.doc; rio.ethics.annual.DDDH.sep2211.message.doc

Ken,

Per your request, I am providing the RCR information you requested for the University of Illinois at Urbana-Champaign (UIUC).

1. Attached is the letter we specifically send out to all NSF awardees. I have also copied the letter below.

2. The UIUC requires that all units provide program(s) to communicate standards of academic and research integrity for the respective disciplines. Reports to the RIO of these activities and programs are required annually.

3. Annual reminders are also sent to deans, directors, and department heads, as well as all faculty, staff and students who conduct research, reminding them of campus responsible conduct of research policies and procedures.

As one option for an online training component, the UIUC is registered with the Collaborative Institutional Training Institute (CITI) for the following modules:

- Responsible Conduct of Research
- Export Control
- Protection of Human Subjects
- Lab Animal Welfare

Please let me know if you need any further information or if you have any additional questions.

Thank you, Ken.

-Howard Guenther  
Research Integrity Officer  
University of Illinois at Urbana-Champaign

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Howard R. Guenther, Ph.D., M.B.A.  
Associate Vice Chancellor for Research

September 13, 2011

To: Executive Officers of Academic Units

From: Ravishankar Iyer  
Interim Vice Chancellor for Research

Subject: Departmental Ethics Programs

Members of the UIUC campus are expected to adhere to the highest standards in the conduct of their scholarly activities. Although the campus has experienced very few serious problems, it is important for units and departments to periodically discuss the ethical standards and practices that represent the norms of their discipline. Recipients of NIH training grants are required to offer a formal ethics presentation to all trainees. In addition, all students and postdoctoral researchers supported by NSF Grants must complete training in the Responsible Conduct of Research.

I am writing to request that you or your designee send a letter to Associate Vice Chancellor Howard Guenther, 408 Swanlund Administration Building, MC-304, describing the program(s) that your unit will offer during the 2011-2012 academic year to communicate the ethical standards of your discipline. **Please respond by November 30, 2011.**

This is an excellent time to have a discussion on ethics, especially as new graduate students join the department. Many units also offer “research methodology” courses in which a discussion of practices dealing with authorship, data sharing, peer review, etc. can be integrated into the curriculum.

Our office is willing to provide assistance and advice in matters of academic integrity and professional ethics, as well as provide access to materials and resources to help you plan for your department’s presentation.

Please also note the Responsible Conduct of Research (RCR) training module within the Collaborative Institutional Training Initiative (CITI) is now available. This utility has been customized for use by UIUC personnel according to their interests/specialties in the biomedical, social and behavioral, physical sciences, or humanities disciplines. Each course includes basic required modules, plus a number of electives in a variety of interest areas. Upon completion, the participant may print a completion report. The latter will be useful in cases where certified training is required, such as for the NSF or other college/department applications. The instructions are attached. Availability of the CITI RCR module to your graduate students may be one option for fulfilling the ethics training requirement described above, but is not meant to replace or substitute for more direct instructional programs.

Thank you in advance for your response.

cc: Howard Guenther  
Melanie Loots  
Debasish Dutta

Date: September 20, 2011

To: Principle Investigators of National Science Foundation Grants

From: Howard Guenther, UIUC Research Integrity Officer

Re: Required Report - Responsible Conduct of Research Training Programs

In accordance with the America COMPETES Act, the National Science Foundation mandates that all funded projects provide certified training in Responsible Conduct of Research (RCR) for all graduate students, undergraduate students, and postdoctoral researchers for all grant applications submitted as of January 4, 2010 (<http://www.nsf.gov/bfa/dias/policy/rcr.jsp>).

Students and postdoctoral researchers supported on these awards must be trained within 60 days of their start date on these awards. The respective PI's are responsible for identifying personnel supported by NSF grants that require RCR training, as well as documenting the specific training provided and completion date for each individual.

The Office of the Vice Chancellor for Research also requires a report of these RCR training program from each PI when each NSF grant is awarded. The report should include a description of the type(s) of RCR training programs offered, the names of all graduate/undergraduate students and postdocs who completed the training, and copies the individual certifications provided. Please forward a description of your RCR training plan to Howard Guenther, UIUC Research Integrity Officer (404 Swanlund Administration Building, 601 East John Street, M/C-304 or [hguenthe@illinois.edu](mailto:hguenthe@illinois.edu)). We would appreciate these responses by **October 25**.

Please note RCR training module within the Collaborative Institutional Training Initiative (CITI) is now available to UIUC researchers as one option for completing this requirement (please see <http://www.citiprogram.org/>). This utility has been customized for use by campus personnel according to their interests/specialties in the biomedical, social and behavioral, physical sciences, or humanities disciplines. Each course includes basic required modules, plus a number of electives in a variety of interest areas. Upon completion, the participant may print a completion report. The latter will be useful in cases where certified training is required, such as for the NSF or other college/department applications. The condensed instructions for the CITI module are enclosed below.

Thank you for your cooperation.

Date: September 22, 2011

To: Deans, Directors, and Department Heads

From: Ravi Iyer, Interim Vice Chancellor for Research

For compliance purposes, federal and state sponsors of research require that all faculty, staff, and students engaged in sponsored research be informed regularly about campus policies on research integrity.

The University-wide procedures for addressing particular instances of unethical conduct in research and publication are available on the Web at:

<http://www.vpaa.uillinois.edu/Policies/integrityresearch/index.cfm>

Under this policy, all members of the University community are expected to observe high standards of academic integrity and ethical behavior in research and publication. Any practice or conduct by a member of the University community that seriously deviates from those ethical standards for proposing, conducting, and publishing research that are commonly accepted within the professional community constitutes academic misconduct in violation of University policy.

Academic misconduct includes, but is not limited to:

- a. Fabrication or falsification of data, including intentionally misleading, selective, or deliberately false reporting of credentials or other academically related information;
- b. Unacknowledged appropriation of the work of others, including plagiarism, the abuse of confidentiality with respect to unpublished materials, or misappropriation of physical materials;
- c. Evasion of or intentional failure after notice by the University or federal, state, or another appropriate agency to comply with research regulations or requirements, including but not limited to those applying to human subjects, laboratory animals, new drugs, radioactive materials, genetically altered organisms, and to safety; and
- d. Other conduct which seriously deviates from accepted ethical standards in scholarship.

In addition, as part of the America Competes Act, the NSF has implemented a responsible conduct of research (RCR) training requirement for undergraduate, graduate and postdoctoral researchers supported by NSF funding. Students and postdoctoral researchers supported on these awards must be trained within 60 days of their start date on these awards. The respective PI's are responsible for identifying personnel supported by NSF grants that require RCR training, as well as documenting the specific training provided and completion date for each individual. Please note RCR training module within the Collaborative Institutional Training Initiative (CITI) is now available to UIUC researchers as one option for completing this requirement (please see <http://www.citiprogram.org/>). This utility has been customized for use

by campus personnel according to their interests/specialties in the biomedical, social and behavioral, physical sciences, or humanities disciplines. Each course includes basic required modules, plus a number of electives in a variety of interest areas. Upon completion, the participant may print a completion report. The latter will be useful in cases where certified training is required, such as for the NSF or other college/department applications. The condensed instructions for the CITI module are enclosed below.

Other related information:

The official campus statement on "Responsible Professional Conduct: Guidelines for Teaching, Research, and Service" is printed in the ACADEMIC STAFF HANDBOOK, available on the Web at:

<http://www.ahr.uiuc.edu/ahrhandbook/chap5/Default.htm>

The statement is also printed in the "Graduate College Handbook for Students, Faculty and Staff," available on the Web at:

<http://www.grad.uiuc.edu/gradhandbook/chapterI/section03.asp>

If you have questions about these policies, please contact Howard Guenther at 333-0030 or [rsofficer@illinois.edu](mailto:rsofficer@illinois.edu).

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## **Responsible Conduct of Research (RCR) Training Module**

### **Collaborative Institutional Training Initiative (CITI)**

#### **Instructions**

1. Proceed to the following web site:

<http://www.citiprogram.org/>

2. If this is your first visit, set up a new account by clicking on "Register Here" and follow the instructions. If you already have an account, login by providing your Username, Password, and clicking on "Submit."

3. On the "Main Menu" page, click on link for "View University of Illinois at Urbana-Champaign instructions page" and note the basic process:

- a. Click on the "add a course or update your learner groups" link;
- b. For the RCR training section, proceed to "Question 3."
- c. Enroll in a "Learner Group" appropriate to your interests; for RCR training these include:

Biomedical Responsible Conduct of Research Course

Social and Behavioral Responsible Conduct of Research Course  
Physical Science Responsible Conduct of Research Course  
Humanities Responsible Conduct of Research Course

d. Click on “Go Back to Learner’s Main Menu”

4. The “Learner’s Menu” lists your course options; identified are core areas and the option to access a number of case studies:

- a. Click on the red link (Enter or Re-Enter) to Begin/Continue the Course;
- b. Complete the “Integrity Assurance” module;
- c. Complete the required modules (estimated time 15 minutes)
- d. Complete any twelve (12) of any “Elective” modules that interest you (estimated time 5-20 minutes per module);
- e. When all of the required modules are completed, you may print your completion report through the “Print” link in the Learner’s Menu.

5. The minimum “passing” grade has been set by the Research Integrity Officer (RIO) at the UIUC; if you want to improve your score on a quiz, you may repeat any section.

6. Print or download a “Course Completion Report” which may be required by your department or your research advisor; a copy is automatically sent to the UIUC RIO.

7. You may return to the course site to complete other sections or to obtain a copy of the completion report.

Howard Guenther  
UIUC Research Integrity Officer  
September 2011



# Academic Staff Handbook

## Chapter 5

### *Research and Teaching*

#### POLICIES ON ACADEMIC INTEGRITY

The University of Illinois is dedicated to learning and research and hence is committed to truth and accuracy. Integrity and intellectual honesty in scholarship and scientific investigation are, therefore, of paramount importance. It is the responsibility of the faculty and staff to maintain high ethical standards of professional integrity.

#### **Responsible Professional Conduct: Guidelines for Teaching, Research, and Service**

The Faculty Senate has endorsed the following set of guidelines for the campus.

Members of the University of Illinois at Urbana-Champaign campus community are expected to adhere to the highest standards of professional conduct in carrying out their teaching, research, service, and other professional responsibilities. Such conduct is subject to norms and ethical codes that vary somewhat among disciplines, as well as to differing individual perceptions and interpretations; but certain general ethical guidelines reflecting the commitment of the campus to these standards are applicable to all faculty, staff and graduate assistants on the Urbana-Champaign campus.

Some types of conduct, expressly forbidden by University rules and regulations (see, e.g., *University of Illinois Policy and Procedures on Academic Integrity in Research and Publication, Policy and Procedures for Addressing Discrimination and Harassment*, and *University of Illinois Policy on Conflicts of Interest and Commitment*), may have severe consequences. Others, not formally proscribed, are nonetheless properly included among the matters to which campus standards of professional conduct apply. Some are addressed in the formalized codes of ethics some disciplines have adopted or are reflected in prevailing practices in various disciplines. Where the University's standards surpass such other norms, it is the University's standards to which members of the campus community are expected to adhere.

The following guidelines relate to activities involved in fulfilling instructional responsibilities, in acquiring and using data in the course of conducting research, in authoring scholarly publications, and in interacting professionally with other individuals on this campus and elsewhere. No set of guidelines can cover all of the kinds of cases to which professional ethical considerations apply. Moreover, the interpretation of specific guidelines in actual situations may be uncertain, and the assessment of complex situations to which a number of different standards and other important considerations apply may be difficult. Those who find themselves faced with such further problems in these areas of

academic life should seek the advice and counsel of campus and professional colleagues and appropriate administrators who may be able to offer advice or suggest actions to mitigate the problem.

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### **Instructional Responsibilities:**

Members of academic units have a fundamental obligation to respect the dignity of all students and to foster their intellectual growth and development.

- a. Faculty members should explain at the beginning of each course the grading criteria to be used and the requirements for successful completion of the coursework. Such criteria and requirements should be clear and should be applied consistently and fairly.
- b. Faculty members should ensure that students are provided feedback and guidance to facilitate their academic progress.
- c. Faculty members should acknowledge sources of and observe copyright for materials prepared for course distribution.
- d. In any student-faculty collaboration, the intellectual contributions of the student should be fully and appropriately acknowledged.

### **Handling of Data:**

Individuals conducting research are obligated to record and preserve data in a manner that accurately reflects the work done, and that allows appropriate scrutiny and evaluation of those data.

- a. Falsification of data, fabrication of data, and unacknowledged appropriation of the data of others are unethical; they are also violations of the University's academic integrity policy.
- b. Data (including source materials) should be retained for an appropriate length of time after publication so that they are available for inspection by collaborators or, when appropriate, by other qualified individuals.
- c. Data should never be withheld from collaborators except for purposes integral to the project.
- d. Individuals conducting research should consider carefully all results, including those that do not fit research expectations.

#### **Authorship, Attribution of Credit, and Other Publication Practices:**

Authors should conform to formally promulgated and/or generally observed standards and practices for authorship and attribution of credit in their disciplines.

- a. Plagiarism is unethical and is a violation of the University's academic integrity policy.
- b. Authorship should be accorded to those who contribute both actively and meaningfully to a study.
- c. Authors (including co-authors) have responsibility for their publications and should respond in an appropriate forum to legitimate inquiries about their data, methods, or interpretations.
- d. Authors should adhere to the standards and requirements of journals to which they submit manuscripts, particularly with respect to simultaneous submissions and originality of research.
- e. Authors should acknowledge funding sources that support their research.
- f. Authors should publish only those findings that result from careful consideration of the materials under study and, when appropriate, replication or verification of the study.
- g. Authors should present in publications of experimental research sufficient information about methodology to permit others to repeat or extend the work.

#### **Professional Conduct:**

Members of the University community must honor contractual obligations in teaching, research, public service, and other professional responsibilities. They

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should further conduct themselves in a professional and collegial manner in all dealings with each other.

a. Members of academic units should provide an environment for professional development of all staff.

b. Individuals assessing the work of others should base their assessments on appropriate professional criteria. Due to the inherent conflicts of interest, no individual should initiate or participate in institutional or educational decisions involving a direct benefit or penalty to a person with whom that individual has or has had a sexual relationship.

c. Members of academic units should seek collegial resolution of professional disputes.

d. Individuals engaged in teaching, research, or public service should respect and abide by legitimate and reasonable requests for confidentiality.

e. Individuals conducting research have an obligation to follow procedures that assure the ethical treatment of human subjects and animals, as well as applicable regulations.

f. Individuals engaged in research and teaching should understand and comply with pertinent regulations for health and safety in the workplace; should see to it that students and collaborators in learning or research projects understand and comply with these regulations; and should work to minimize risks to health and safety in the learning or research environment.

g. Individuals conducting research should spend research monies in ways consistent with the goals stated in contract documents.

h. Individuals conducting research and/or the officials of their administrative units have an obligation to keep clear records of expenditures and to make these records available to appropriate parties.

### **Academic Misconduct**

In addition to the *Responsible Conduct* guidelines, the *University of Illinois Policy and Procedures on Academic Integrity in Research and Publication* ([www.research.uiuc.edu/ai/index.asp](http://www.research.uiuc.edu/ai/index.asp)) sets forth University-wide procedures for addressing particular instances of unethical conduct in research and publication.

According to the *Policy and Procedures*, any of the following constitutes academic misconduct:

1. Fabrication or falsification of data, including intentionally misleading, selective, or deliberately false reporting of credentials or other academically related information;
2. Unacknowledged appropriation of the work of others, including plagiarism, the abuse of confidentiality with respect to unpublished materials, or misappropriation of physical materials;
3. Evasion of, or intentional failure after notice by the University of Illinois federal, state, or other appropriate agency to comply with, research regulations or requirements, including but not limited to those applying to human subjects, laboratory animals, new drugs, radioactive materials, genetically altered organisms, and safety; and
4. Other conduct that seriously deviates from accepted ethical standards in scholarship.

Differences of interpretation or judgment, or honest error, do not constitute academic misconduct.

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### **Procedures in Cases of Suspected Misconduct**

If the person whose conduct is in question is an undergraduate student, the matter should proceed according to the *Code on Campus Affairs*. If the person is a graduate student, it should be handled according to the *Bylaws of the Graduate College*, which parallels much of the *Policy and Procedures*. Otherwise, any member of the University community who becomes aware of an apparent instance of academic misconduct relating to research or scholarship is obligated to report the incident or practice to the executive officer (e.g., head of the department or comparable administrator) of the unit concerned or to the campus research standards officer. The research standards officer, unit executive officers, deans, and everyone else involved are charged with protecting the academic reputation and position of anyone who in good faith reports misconduct in scholarship or research.

From [https://research.uiowa.edu/ovpr/files/files/RCR%20plan%2005\\_26\\_11.pdf](https://research.uiowa.edu/ovpr/files/files/RCR%20plan%2005_26_11.pdf)  
(Aug 31, 2011)

## **University of Iowa Responsible Conduct of Research (RCR)**

The University of Iowa has a history of promoting an environment of the highest ethical conduct of research and scholarly activities. A Responsible Conduct of Research (RCR) program has been instituted. Program content and dissemination continues to evolve under the joint sponsorship and responsibility of the Vice President for Research and the Graduate College.

### **Overall Scope**

The Iowa RCR program is designed to meet the training needs for all funding sources. It complies with the NSF (see: <http://www.nsf.gov/bfa/dias/policy/rcr.jsp> and <http://edocket.access.gpo.gov/2009/E9-19930.htm>) and NIH (see: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>) requirements.

Our current RCR program focuses on four groups specifically engaged in NIH-/NSF-funded research or other scholarly creativity involving undergraduates, predocs, postdocs and early career faculty holding NIH K-Awards. For the purposes of RCR education, members of these four groups are designated as *trainees*.

If the trainee is engaged in research that is funded by NIH or NSF (e.g., investigator initiated, career award, fellowship, or training grant), then the trainee must complete the appropriate RCR program described below.

### **Options**

A synopsis of RCR options for trainees is provided in Table 1 below. As an example, a predoc or postdoc funded by a NIH T32 training grant would take the *Didactic and Small Group Discussion* RCR course offered by the Graduate College. An undergraduate supported by a NSF grant would take the on-line Collaborative Institutional Training Initiative (CITI) RCR training. Successful completion of the appropriate option will meet the University of Iowa RCR training requirement.

**Table 1: Initial Institutional RCR Training Requirements**

| <b>Oversight of Content Delivery</b> | <b>Undergrad Trainees and individuals with a limited term appointment</b> | <b>Predoc Trainee</b>                                 | <b>NIH F30 &amp; F31 Predoc Fellows</b>               | <b>Postdoc Trainee</b>                                | <b>NIH F32 Postdoc Fellows</b>                        | <b>NIH K-Award Faculty</b>                            | <b>Professional Degree Students *</b>     |
|--------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|
| Vice President for Research          | <a href="#">On-line CITI RCR training</a>                                 | N/A                                                   | N/A                                                   | N/A                                                   | N/A                                                   | N/A                                                   | <a href="#">On-line CITI RCR training</a> |
| Graduate College                     | N/A                                                                       | Didactic and Small Group Discussion course<br>650:270 | Didactic and Small Group Discussion course<br>650:270 | Didactic and Small Group Discussion course<br>650:604 | Didactic and Small Group Discussion course<br>650:604 | Didactic and Small Group Discussion course<br>650:614 | N/A                                       |

\* e.g., AuD, DDS, DNP, MD, MHA, MPH, MSN, PharmD

**Table 2: Additional Programmatic RCR Training**

| <b>Oversight of Content Delivery</b> | <b>Undergrad Trainee</b> | <b>Predoc Trainee</b>         | <b>Postdoc Trainee</b>        | <b>NIH K-Award Faculty</b>    |
|--------------------------------------|--------------------------|-------------------------------|-------------------------------|-------------------------------|
| Program holding T32 training grant   | N/A                      | T32 Program specific training | T32 Program specific training | T32 Program specific training |

RCR Content

RCR subject matter is specifically defined to accommodate research disciplines across the campus.

A) For all undergraduate trainees and individuals with a limited term appointment supported by NSF or other sponsors, the CITI RCR syllabus is followed:

- Introduction to the Responsible Conduct of Research

- Research Misconduct
- Data Acquisition, Management, Sharing and Ownership
- Publication Practices and Responsible Authorship
- Peer Review
- Mentor and Trainee Responsibilities
- Animal Welfare
- Conflicts of Interest and Commitment
- Collaborative Research
- Human Subjects

B) For all predoc, postdoc and K-Award faculty trainees regardless of funding source, a comprehensive RCR syllabus is followed:

- Introduction, Definitions and Rationale
- Data Acquisition, Management, Sharing and Ownership
- Conflict of Interest (COI) and Commitment (COC)
- Research Involving Human Subjects
- Animal Welfare in Research
- Research Misconduct
- Publication Practices and Responsible Authorship
- Mentor / Trainee Responsibilities and Relationships
- Peer Review
- Collaborative Science
- Financial Management
- Research Safety
- Responsibility to Society

#### Maintenance of RCR Content

RCR content will be reviewed at appropriate intervals and modified 1) to include new material such as pertinent discipline specific case studies and 2) to remove outdated or obsolete information. The faculty responsible for the Didactic and Small Group Discussion courses (650:270 and 650:604, Principles of Scholarly Integrity) will review their material annually to modify and/or update presentations and case studies. Trainee and faculty feedback will be obtained through course surveys at the end of each academic year.

An annual audit of the RCR program will take place to evaluate the overall training process and to monitor effectiveness, compliance and create opportunities for content/process improvement by the Office of the Vice President for Research.

#### Content Delivery and Assessment

For undergraduates the *CITI RCR Training* online WEB course (<https://uiris.uiowa.edu/dashboard/citi>) is used to introduce RCR concepts and to

provide case based training opportunities for undergraduates. On-line testing is employed to measure comprehension. This is the most feasible training mechanism for those undergraduate students who participate in research for very limited time periods.

For predocs, postdocs and K-Award faculty a *Didactic and Small Group Discussion* course (650:270, master's and doctoral graduate students; 650:604, postdocs and K-Award faculty) is required. All trainees participate in a four-hour orientation workshop that provides an introduction to core RCR principles. Following this orientation, students attend topical workshops that will focus on specific elements of these tenets in the course syllabus. Each workshop includes a short didactic period (15-20 min) followed by more in-depth small group discussion of 2-3 case studies (70-75 min). Doctoral students will complete the orientation workshop and eight topical workshops over a four-semester period during their first two years of graduate training (16 contact hours). Master's students, postdoctoral trainees and K-Award faculty will complete the orientation workshop and four topical workshops over a two-semester period (10 contact hours). Each small group includes a multidisciplinary mix of graduate students and postdoctoral trainees. Discussion is led by a faculty facilitator. Active trainee participation is required in these small group sessions. Students attend two sessions each semester (fall and spring). For those students with bona fide excused absences, they may meet with the faculty facilitator to discuss the material. For those students with unexcused absences, the trainees are required to prepare a short paper on the topic covered during their absence, discuss it with a faculty facilitator, who then evaluates the student's performance. . Course attendance and participation is monitored and recorded electronically through the UI ICON course management system.

### Training Requirements

Trainees are required to complete the appropriate RCR program based on their current university position (undergraduate, predoc, postdoc, or K-Award faculty) as outlined in Table 1.

For example, *undergraduates* supported by NSF funds or from other sponsors, the CITI RCR training is to be initiated and completed prior to but no later than the first month of trainee compensation (e.g., RCR completed before or during the first month of a summer research program).

For *master's students, postdocs* and *K-Award faculty* supported by NSF, NIH (non-training grants), NIH T32 training grants, NIH F30, F31, and F32 fellowship awards, NIH K-Award or any other source of funds, RCR training is to be initiated and completed within 12 months of the start of trainee support and compensation from the grant.

*Predoctoral trainees* will continue beyond the 12-month period and complete an additional four workshops to further emphasize the principles of scholarly integrity.

For *Predoc* trainees who have received a Master's degree from the University of Iowa, a second year of RCR training is required beyond what was completed for their Master's RCR requirement.

In addition, NIH T32 trainees may be required to complete specific T32 RCR training identified by their individual NIH training programs as shown in Table 2.

As trainees at the University of Iowa enter a new phase of their career, they are required to obtain additional RCR training consistent with their new university position (e.g., undergraduate moving into a predoc position; predoc moving into a postdoc position; postdoc moving into a K-Award faculty position). This continuation of RCR training is mandated by both NIH and NSF.

### Failure to Complete RCR Training and Consequences

For undergraduates, failure to complete the CITI training in the designated time, results in 1) suspension of research activities and 2) loss of compensation. In order for compensation to resume and to continue research activities requires that the undergraduate trainee successfully complete CITI RCR training.

For predocs, postdocs and K-Award faculty, failure to complete all required RCR modules within the designated time period results in 1) a grade of Unsatisfactory in 650:270 or Withdrawal in 650:604, 2) having to repeat the RCR training course from the beginning, and 3) suspension of trainee grant funding and support, which includes stipend, tuition, fees, travel, supplies, etc. To have funding reinstated, the trainee must complete CITI RCR on-line training. It is only after CITI RCR training has been successfully completed and they have registered for the appropriate course (650:270 or 650:604) in scholarly integrity will funding be restored.

### Certification

Upon satisfactory completion of the designated RCR modules and syllabus, the transcript or employment record of the trainee is updated to indicate that RCR and scholarly integrity training have been completed. For undergraduates, a copy of the CITI certificate of satisfactory completion will be kept on file in the OVPR office. For predocs and postdocs, the student's University transcript will reflect satisfactory completion of 650:270 or 650:604. For faculty, the employment record will identify satisfactory RCR completion.

The Office of the Vice President for Research will be responsible for the overall RCR plan and for providing information to sponsoring agencies regarding compliance with RCR training.

### Transfer of RCR Training Between Institutions

If a trainee leaves another institution (e.g., exits as a predoc) and transfers to the University of Iowa (e.g., enters as a predoc) and can certify successful completion of prior RCR training at their former institution, then upon presentation of certified RCR training documentation, the University of Iowa will waive repeating RCR training.

If a trainee enters the University of Iowa from another institution as part of a new phase of their career (e.g., completed predoc training elsewhere and enters Iowa as a postdoc), then the trainee will need to take new RCR training consistent with their change in position as outlined in Table 1 above.

If a trainee transfers from the University of Iowa to another institution and has successfully completed RCR training, the University of Iowa upon request will provide documentation of RCR training for the new institution.

### Additional RCR Training

Trainees are strongly encouraged to continue RCR training in a mentored setting. Colleges, departments, centers and other university units are asked to advance the education of scholarly integrity by providing faculty and trainee seminars on RCR throughout the year and to promote active discussion of RCR topics in all research venues.

### RCR References and Web sites

The AAAS-ORI Bibliography and Resources on the Responsible Conduct of Research (Feb 2005) <http://www.aaas.org/spp/sfrr/projects/ori.shtml>  
*Large database of references and online resources on RCR*

NSF Federal Register Notice on RCR Implementation: [Federal Register Notice of August 20, 2009 \(Volume 74, Number 160\)](#)

NPA RCR Toolkit: <http://www.nationalpostdoc.org/rcr-toolkit>

ORI's RCR Education Materials Clearinghouse <http://ori.dhhs.gov/education/products/>

National Academy of Engineering Workshop Report: Ethics Education and Scientific and Engineering Research: What's Been Learned? What Should be Done?  
[http://www.nap.edu/catalog.php?record\\_id=12695](http://www.nap.edu/catalog.php?record_id=12695)

Collaborative Institutional Training Initiative, University of Miami, CITI Responsible Conduct of Research Program <https://www.citiprogram.org/rcrpage.asp>  
*Extensive on-line RCR courses provide a significant source of instructional material*

Responsible Scientific Conduct Bibliography from University of Pittsburgh Survival Skills and Ethics Program

<http://www.survival.pitt.edu/library/biblio/responsible.asp>

Steneck, N.H. (2004) *ORI Introduction to the Responsible Conduct of Research*

<http://ori.dhhs.gov/documents/rcrintro.pdf>

*An introduction to RCR, with a useful list of resources in its bibliography*

RCR Education Consortium Home Page (2002-2004)

<http://rcrec.org/>

*An extensive online repository of RCR education resources for instructors*

Bebeau, M.J., Pimple, K.D., Muskavitch, K.M.T., Borden, S.L., and Smith, D.L. (1995)

*Moral Reasoning in Scientific Research: Cases for Teaching and Assessment.*

Bloomington, IN: Indiana University.

<http://poynter.indiana.edu/mr/mr-main.shtml>

*Handbook for teaching scientific ethics through moral reasoning; uses a case study approach*

Board on Health Sciences Policy and Institute of Medicine (2002) *Integrity in Scientific Research: Creating an Environment That Promotes Responsible Conduct.* Washington, DC: National Academies Press

[http://books.nap.edu/openbook.php?record\\_id=10430&page=84](http://books.nap.edu/openbook.php?record_id=10430&page=84)

*Focuses on research integrity in the biomedical sciences. Note in particular Chapter 5: "Promoting Integrity in Research through Education" which contains advice on how to teach RCR and how it should be integrated with the teaching of basic research skills*

Fischer, B.A. and Zigmond, M.J. (2001) "Promoting Responsible Conduct in Research Through "Survival Skills" Workshops: Some Mentoring is Best Done in a Crowd."

*Science and Engineering Ethics* 7(4): 563-87.

*Addresses the efficacy of "survival skill"-types of programs for teaching graduate student*

Korenman, S.G. and Shipp, A., eds. (1994) *Teaching the Responsible Conduct of*

*Research Through a Case Study Approach: A Handbook for Instructors.* Washington,

DC: Association of American Medical Colleges

*Guidance and useful case studies for teaching RCR*

## Template Language for NIH grants regarding RCR

The University of Iowa has developed a comprehensive RCR training program that introduces RCR concepts and continues to develop and expand key topics identified by NIH. It is designed to exceed current NIH requirements.

Format: Two formal courses are offered that are specifically geared for NIH trainees. Course 650:270 is designed for graduate students (Master's and PhD students). Course 650:604 is specifically for postdocs and K-award faculty. The course format combines didactic and small group discussions. University faculty from multiple disciplines introduce RCR topics and issues and also lead discussion with trainees in small group sessions. Participation by the trainees is required.

Subject Matter: The RCR subject matter for both courses consists of 1) Introduction, definitions and rationale, 2) Data acquisition, management, sharing and ownership, 3) Conflict of interest (COI) and commitment (COC), 4) Research involving human subjects, 5) Animal welfare in research, , 6) Research misconduct, 7) Publication practices and responsible authorship, 8) Mentor/trainee responsibilities and relationships, 9) Peer review, 10) Collaborative science, 11) Financial management, 12) Research safety, and 13) Responsibility to society.

Faculty Participation: The discussion sessions are led by training faculty and research mentors from disciplines across the institution. In addition, participating K-award faculty also take responsibility for leading group discussions.

Duration of Instruction: For 650:270, 4 semesters of training are required for PhD students and 2 semesters are required for Master's students. RCR training includes a minimum 4 contact hours per semester. The course is offered in the fall semester (trainees meet 3 times) and spring semester (trainees meet 2 times). Course 650:604 is designed for postdoctoral trainees and K-award faculty. The same RCR content is provided in combined didactic format and small group discussions, however, content is delivered over 2 semesters.

Frequency of Instruction: RCR training is required for each phase of a trainee's career (undergraduate, graduate, postdoc and K-award faculty). New graduate students and trainees with NIH funding take the 650:270 course early in their research career. Trainees that remain at Iowa and matriculate from predoc to postdoc or postdoc to K-award faculty, will take additional RCR training defined by either 650:270 or 650:604 as they enter their new career phase.

Process for Initiating Undergraduate RCR Training. (This process also applies for individuals with a limited term appointment.)

1. Log in to the CITI Gateway for the University of Iowa  
(<https://uiris.uiowa.edu/dashboard/citi>)
2. Click on the link “Add a course or update your learner groups for University of Iowa”
3. Under Question 1 “Human Subjects Research Course Enrollment,” select the group appropriate to your research activities
4. Under Question 2 “Responsible Conduct of Research Course Enrollment,” select the RCR learner group that is most appropriate to your role in research.
5. Under Question 3 “Lab Animal Research Course Enrollment,” select one or more courses that apply.
6. To pass each course you must complete all the elective modules with at least the required score listed at the top of your screen.
7. You must pass all three courses (Human Subjects, Responsible Conduct of Research, and Lab Animals) in order to satisfy the RCR Training requirement.

Process for Initiating Predoc RCR Training

1. Log in to ISIS  
(<https://login.uiowa.edu/uip/login.page?service=https://isis5.uiowa.edu/isis/>)
2. Search for course 650:270, “Principles of Scholarly Integrity.”
3. Register for one of the three sections based on your degree objective:
  - a. Section 001 — Doctoral degree students (PhD only; 1 sem hr)
  - b. Section 002 — Masters degree students (MS, MA only; 0 sem hr)
  - c. Section 003 — Nondegree graduate students (G9; 0 sem hr)
4. Complete course objectives.

Process for Initiating Postdoc RCR Training

1. Log in to ISIS  
(<https://login.uiowa.edu/uip/login.page?service=https://isis5.uiowa.edu/isis/>)
2. Register for course 650:604, “Principles of Scholarly Integrity.”
3. Complete course objectives.

Process for Initiating K-award faculty RCR Training

1. Log in to ISIS  
(<https://login.uiowa.edu/uip/login.page?service=https://isis5.uiowa.edu/isis/>)
2. Register for course 650:614, “Principles of Scholarly Integrity.”
3. Complete course objectives.



From <http://www.drda.umich.edu/policies/federal/NSF-RCR-statement.pdf>

August 31, 2011

## **Responsible Conduct of Research for Undergraduate Students, Graduate Students and Postdoctoral Researchers participating in National Science Foundation Research Projects**

University of Michigan's Plan for Compliance with NSF's implementation of Section 7009 of the America COMPETES Act

The University of Michigan is committed to fostering an environment of responsible conduct of research. As part of this commitment and in compliance with NSF's implementation of Section 7009 of the America COMPETES Act, the University requires that all NSF-supported undergraduate students, graduate students, and postdoctoral researchers complete appropriate training in the responsible and ethical conduct of research. Similar requirements have applied to NIH training programs for some time, and are likely to apply to research grants at NIH and other federal agencies in the near future.

The University has established the Program for Education and Evaluation in Responsible Research and Scholarship (PEERRS). PEERRS consists of on-line educational modules and short tests covering basic rules, procedures and professional norms for the responsible conduct of research. The Office of the Vice President for Research maintains certification records of completion of the PEERRS.

All undergraduate students, graduate students, and postdoctoral researchers participating in NSF-supported research projects are required to complete the PEERRS module "Foundation of Good Research Practices" and pass the test with a minimum grade of 80%. In addition, NSF-supported graduate students, and postdoctoral researchers are required to complete the "Authorship, Publication, and Peer Review" PEERRS module. U-M plans to continue to enhance the online RCR training programs over the next year to provide additional training options and improve linkages to U-M resources such as the PLAN: Profession, Life, Academics, Network (<http://www.rackham.umich.edu/plan/>). Additional training options will include the PIBS503 short course on RCR, offering a combination of online and in-person training to bioscientists at the graduate and postdoctoral level.

The Office of the Vice President for Research (OVPR) and Rackham Graduate School have created a joint task force to examine and implement resources for RCR training that can be adapted to multiple fields of research and scholarship. The intent is to provide content for modules that are both applicable to all areas (Integrity in Scholarship, Plagiarism, and Copyright issues) and discipline-specific in a format that is compatible with both verifiable online training, group discussions of RCR issues, and personal mentoring. It is intended that the Task Force create a user-friendly and adaptable online platform and the widely applicable "front end" modules, while more discipline-specific modules are created in collaboration with participating schools and colleges. College/School and Department specific requirements will be posted on U-M's RCR Web Site.

Resources for postdoctoral mentoring are posted at:  
[http://www.rackham.umich.edu/faculty\\_staff/ensuring\\_success/promising\\_practices/mentoring\\_advising/](http://www.rackham.umich.edu/faculty_staff/ensuring_success/promising_practices/mentoring_advising/)

August 31, 2011

**University of Minnesota  
Plan for NSF RCR Requirement  
January 2010**

**Background and History:**

- The America COMPETES Act was signed into law on August 9, 2007. Section 7009 of the Act requires that institutions applying for funding from NSF have a plan to provide training in the responsible and ethical conduct of research for all students and postdoctoral researchers involved in these projects.
- On February 26, 2009, National Science Foundation (NSF) published a request in the Federal Register for comments on the new requirement. The University of Minnesota, along with many other institutions and groups, provided comments and feedback to NSF.
- In July 2009, an ad hoc NSF RCR committee with broad membership from across the University, including the coordinate campuses, was gathered to draft a preliminary recommendation on how to comply with this new requirement.
- On August 20, 2009, NSF published a final version of the new requirement. "Effective January 4, 2010, NSF will require that, at the time of proposal submission to NSF, a proposing institution's Authorized Organizational Representative certify that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research." Other key elements of the new requirement include:
  - "While training plans are not required to be included in proposals submitted to NSF, institutions are advised that they are subject to review upon request."
  - "...institutions are responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received RCR training."
  - NSF will leave it up to the institutions to decide the content and delivery method of the training and how the training would be recorded and tracked.

**Philosophy of Plan:**

The NSF RCR Committee set out to develop a plan that would not only be beneficial to the student researchers, but also would be feasible, using existing resources. Faculty vary in their familiarity and experience with research ethics issues. Curriculum materials need to be available to support their educational activities about these issues. In the same way, since students have a range of experiences with learning about research ethics issues, this plan needs to provide information and review for all of them. The plan needs to build on the curriculum materials already in place at the University, while also filling in any gaps. And since "research ethics" education combines the presentation of information with applying it to nuanced real-world examples, the plan needs to find a way to balance the usefulness and accessibility of web-based instruction with the opportunity to deepen understanding of the complexity of the issues that comes through interaction.

Three constituent audiences of students were identified, because the developmental needs of each are different. The plan provides content and format for curriculum materials that are appropriate for each level.

Three main topics were selected as the primary focus for this training to support the idea that students involved in projects supported by NSF will likely become the next generation of researchers and scholars, and that this training should create a foundation for their future research and investigation. These topics are: authorship and plagiarism; data/research integrity; and reporting misconduct.

Oversight and tracking of the training was regarded as a responsibility shared by the PI and the University, to be coordinated by the Office of the Vice President for Research (OVPR). PIs and their academic units will be responsible to identify current courses and activities that meet the requirement, and encourage the

development of new courses and activities. OVPR will provide infrastructure to identify and notify students who need the training, and maintain completion records.

**Plan for providing RCR training for students supported by NSF funding:**

**Content/Minimum core topics:** While each discipline and type of research may drive different kinds of ethical training, there is a core set of topics that training for any student researcher should address:

- Authorship & Plagiarism – roles and responsibilities of being an author; how different disciplines approach co-authorship; how to define, identify, and avoid the many forms plagiarism can take
- Data/Research Integrity – how to collect, store, protect, and share data in ways that protect the validity and accuracy of the research and scholarship
- Reporting Misconduct – responsibilities of student researchers for identifying and reporting misconduct; University resources for reporting and for self-protection

**Format:** In-person training is the best format to facilitate discussion and in-depth consideration of these topics. However, online training is the more realistic option, given existing resources. Any online training must incorporate some sort of interactive element, such as synchronous or asynchronous online chats or discussions, or the ability to assess understanding.

**Length of training:** The minimum topics must be addressed in a substantive way. So while no minimum time is dictated, experience indicates that at least 2 hours are needed to cover this material.

**Due dates:** Students must be enrolled in a semester-long course or have completed this training activity within 90 days after they begin to be funded by the project. If enrolled in a course that extends beyond 90-day deadline, student must provide proof of completion of course.

**Other training:** This training will not substitute for other coursework that must be completed because of the nature of the research being conducted, e.g., human subjects protection, animal subjects protection, lab safety, etc.

**Options for completing training requirement**

**Postdoctoral Researchers:**

Postdoctoral Researchers will complete the responsible conduct of research curriculum (RCR parts 1 & 2) that is currently required for all faculty engaged in sponsored research  
<<http://www.research.umn.edu/first/EdReqs.htm>>.

**Graduate Students:**

Graduate Students will meet the new NSF requirement in one of the following ways:

- Complete a course or seminar that already meets the Grad School research ethics requirement and includes the minimum core topics
- Complete online course(s) identified and approved by NSF RCR committee; list is available on the FIRST website.
- Complete some other unit/department-developed course or activity that covers the minimum core topics and meets the recommendations for format and length.

**Undergraduate Students:**

Undergraduate Students will meet the new NSF requirement in one of the following ways:

- Complete online course(s) identified and approved by NSF RCR committee; list is available on the FIRST website.
- Complete some other unit/department-developed course or activity that covers the minimum core topics and meets the recommendations for format and length.

**Approval process for courses, seminars, and other activities**

The Associate Dean for Research or equivalent for each college or equivalent academic unit will serve as a clearinghouse to identify and approve courses, seminars and other activities that will meet this requirement. They will identify a preliminary approved list, and review new or substantially revised courses, seminars and other activities to ensure the list continues to meet the NSF requirement. OVPR will publish this list on the Internet and maintain it with information from the academic units.

**Verification of individual completion of requirement:**

Lists of courses, seminars, and other activities that meet the NSF RCR training requirement will be posted on a website maintained by RCR/RIOP. All data entry of completed courses or activities will be done by RCR/RIOP staff. When students complete individual courses or activities to meet the requirement, they must submit a completion certificate to RCR/RIOP. When students complete an in-person course or activity to meet the requirement, they will have several options for reporting it: submitting an individual completion form that has been signed by the instructor, or signing in for the course, using forms the instructor submits to RCR/RIOP.

**Tracking:**

Reports will be generated to identify all of the appropriate students who are required to take this training, based on UMN payroll records for the appropriate employee categories. An automated e-mail will be sent to the students who need to meet the requirement, based on this report. A copy of the email will also be sent to the PI on the project and/or to an identified collegiate contact. The email will contain information about the requirement, the options and deadline for completing it, and the consequences for failure to do so. Subsequent reports will identify the students who have not completed the requirement after 45 days, and generate a reminder email that will be sent to the student, PI and collegiate designated contact.

**Failure to complete training:**

If the requirement has not been met at the 90-day deadline, an email will be sent to the student, PI, collegiate designated contact, and to the Associate Dean for Research or equivalent for the collegiate unit. This email will direct the student to contact RCR/FIRST within 10 business days and present a plan for how the student intends to complete the requirement, and the projected date by which they will complete the training.

Students who fail to complete the requirement according to the deadline in their plan will be dealt with on an individual basis. Any additional email notifications will be sent to the student, PI, collegiate designated contact and the Associate Dean for Research or equivalent for the academic unit.

Consequences for students who fail to comply with the NSF RCR training requirement may include: not being allowed to continue work on the NSF-funded project, and jeopardizing their opportunities to work on future NSF-funded projects.

PIs are responsible for ensuring that students who work on NSF-sponsored projects complete the RCR training in a timely and meaningful way. Consequences for PIs who do not meet the responsibility of ensuring that their students comply with the NSF RCR training requirement may include one or more of the following:

- Students who have not been trained will not be allowed to continue working on the NSF-funded project
- Costs for salary and fringe paid to students who were not trained will be removed from the NSF account and transferred to a non-sponsored departmental account
- PIs must present plan for how future students hired using NSF funding will meet requirement
- At the discretion of the Associate Dean for Research or equivalent of the college or unit, PRFs for NSF funding will not be accepted from PIs who repeatedly fail to meet their responsibility for this requirement

**NSF RCR Ad Hoc Committee**

The NSF RCR Committee was comprised of faculty and administrative staff representing a variety of academic units:

- Huber Warner, Associate Dean, Biological Science, CBS
- Janet Schottel, Professor, Biochemistry, Molecular Biology & Biophysics, CBS
- Becky Yust, Professor, Design, Housing and Apparel, CDes
- Ellen Schwarzkopf Freeman, Coordinator, College of Education and Human Development, CEHD
- Phillip Burton, Research Associate, Liberal Arts Administrative Office of the Dean, CLA
- Celia Gershenson, Adjunct Associate Professor, Psychology, CLA
- Nora Keenan, Graduate Student, Psychology, CLA
- Gedas Adomavicius, Associate Professor, Carlson School of Management, CSOM
- Joachim Heberlein, Professor, Mechanical Engineering, IT
- Christian Teyssier, Professor, Geology and Geophysics, IT
- Vicky Munro, Coordinator, Undergraduate Research Opportunities, UROP
- Tim Holst, Associate Vice Chancellor, UMD
- Steve Colman, Director, Large Lakes Observatory, UMD
- Jeffrey Ratliff-Crain, Professor, Social Sciences, UMM
- Carol Foth, Manager, RCR/Research Integrity and Oversight Programs (RIOP), OVPR
- Michele Chin-Purcell, Executive Director, RIOP, OVPR

In addition, several people served in a consultative role, based on their work with one or more of the student populations:

- Vicki Field, Associate to the Dean, The Graduate School
- Pamela A. Webb, Associate Vice President for Research Administration, OVPR

**Approvals:**

Pamela A. Webb, Associate Vice President for Research Administration, University of Minnesota Authorized Organizational Representative

*Pamela A. Webb* 1/5/10  
date

R. Timothy Mulcahy, Vice President for Research

*R. Timothy Mulcahy* 1/6/10  
date



# University of Nebraska–Lincoln

## Office of Graduate Studies

### Responsible Research Training (GRDC 98 online)

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#### Background Information

Memo from Dr. Espy to UNL Faculty (8/3/10)

*August 3, 2010*

*Colleagues,*

*The Office of Graduate Studies and the Office of Research Responsibility are excited to announce a new on-line training program in UNL's Responsible Conduct of Research (RCR) toolbox, being released later this month.*

*The training covers subjects that apply to all students and postdoctoral researchers like mentor and trainee roles, authorship and collaboration. It's not meant to replace any existing training but rather to provide all mentored researchers with the baseline knowledge they need to continue the study and practice of RCR. The training is offered completely on Blackboard (listed as GRDC 098) and can be completed in about an hour.*

*All undergraduate researchers, graduate students and post-docs in academic units eligible for NSF funding are required to complete this new training (for a list of the colleges/departments affected see below). Students and postdocs working in these colleges/departments will be automatically enrolled in GRDC 098. The GRDC 098 course will appear in the student's Blackboard course list. Training should be completed by Nov. 1, 2010 and each student will receive a certificate once the course is completed.*

*Note: As of Jan. 1, 2010, NSF requires didactic training in the responsible conduct of research for all graduate, postdoctoral and undergraduate students involved in research. (See the January 2010 NSF Proposal and Award Policies and Procedures Guide links below). When UNL submits grant applications and accepts awards, it is required to certify that students will receive RCR training in compliance with this federal requirement. Thanks for your help with this project.*

*Kimberly Andrews Espy  
Associate Vice Chancellor for Research & Acting Dean of Graduate Studies  
Charles Bessey Professor and Professor, Department of Psychology  
Office of Research, University of Nebraska-Lincoln  
303 Canfield Administration Building  
Lincoln, NE 68588-0433*

#### UNL departments and academic units required to participate

1. All academic units in the College of Engineering
2. The following departments in the College of Arts & Sciences:
  - Anthropology
  - Chemistry
  - Communication Studies
  - Computer Science & Engineering
  - Geosciences
  - Mathematics
  - Physics & Astronomy
  - Political Science
  - Psychology
  - School of Biological Sciences
  - Sociology
  - Statistics
3. All departments in the College of Education & Human Sciences except Educational Administration
4. All departments and academic units in the Institute of Agriculture and Natural Resources

NSF Proposal and Award Policies and Procedures Guide  
 (January 2010)  
 Part I – Grant Proposal Guide, Chapter [II.C.1e](#)  
 Part II – Award and Administration Guide, Chapter [IV.B](#)

## Frequently Asked Questions

Click the show/hide icons (red triangles) to expand or collapse content.

▼ Q1: I need to (or would like to) complete the training, but I wasn't enrolled automatically. How can I get enrolled?

*A: Sign into [Blackboard](#) and search **Courses** for "Responsible Rsh Trng" to enroll ([see screenshot](#)).*

▼ Q2: I see I'm enrolled in GRDC98 in Blackboard, but I don't see it on my class schedule. Do I need to add the class on eNroll?

*A: It isn't necessary to add the class on eNroll. Completing the Blackboard training is sufficient. GRDC98 will not show up on your transcript. You will not be charged any tuition or fees for this training program.*

▼ Q3: I'm an undergrad working in a Biological Sciences lab, but I'm a History (or Art, or English, etc.) major. Do I need to take the training?

*A: While it's true you wouldn't be required to complete this training as a student of History (or several others), you **will** need to complete the training since you are employed by a department that is under the training requirement (see complete list above).*

▼ Q4: What are the consequences if I don't complete this course?

*A: The NSF is requiring all mentored researchers to complete RCR training. Non-compliant institutions are not eligible for NSF funding. Your department may lose some financial support. You may not be able to renew your assistantship or other research employment. Worst of all, you'll get a lot of email reminders. Please complete the training course as soon as possible.*

▼ Q5: How do I access the training?

*A: If you're required to complete the training, you'll probably be enrolled automatically in GRDC 98 (see also Q1 above). This training program will appear in your Courses list on Blackboard:*



▼ Q6: Can the training be completed in pieces throughout the semester or does it all need to be done at one time? Is there a completion deadline?

*A: Blackboard saves your progress so you can split the course into sessions as you see fit, keeping in mind that you'll need to **complete the course by March 15, 2011**. If you don't complete the course, you'll be registered for GRDC 98 again the next semester (see also Consequences, Q4 above).*

▼ Q7: What course materials will I need to purchase? Is there a reading packet or book for the course?

*A: GRDC 98 is completely self-contained on Blackboard. No outside materials are required.*

▼ Q8: Will I be charged more class fees or tuition hours because you registered me for this training?

*A: The training course is offered at no cost to you. There are no fees or tuition. GRDC 98 will not appear on your class schedule*

or transcript. You will be enrolled only on Blackboard.

▼ Q9: I plan to graduate at the end of the current semester. Do I need to complete the training?

*A: Yes, especially you. It takes only an hour and it will serve you well in your future career.*

▼ Q10: I've previously completed RCR training courses. Do I really need to take this new training?

*A: We commend you for completing other training and apologize for any inconvenience, but the UNL Office of Research Responsibility (ORR) needs to track compliance with the new NSF requirement. The new training on Blackboard allows the ORR to easily see who has (and hasn't) completed the base requirement. The new training program will only take about an hour to complete. Approach it with an open mind and have fun.*

▼ Q11: Does this new training replace the IRB and IACUC training programs offered through CITI?

*A: No. The new course doesn't replace IRB, IACUC and other training programs. The new training course covers only seven topics of RCR that apply to students of all disciplines. If the other training programs pertain to you, you'll still need to complete them as well.*

Older content for Responsible Conduct of Research: [Video Vignettes](#).

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## **University Plan for Training in Responsible Conduct of Research University of North Carolina at Chapel Hill**

### **Jump to:**

[Who must be trained \(Covered Population\)?](#)

[What does training include \(Requirements\)?](#)

[When should training occur \(Timing and Frequency\)?](#)

[What courses meet the training requirement \(Qualifying Programs\)?](#)

The University of North Carolina at Chapel Hill is committed to maintaining high standards of ethical conduct in all aspects of its work including research and education. Appropriate instruction in Responsible Conduct of Research (RCR) is an essential component of the professional development of our researchers at all career levels.

This plan articulates a program to provide training in key RCR topics. However, an academic researcher's exposure to RCR is not limited to a specific classroom experience. The University shares responsibility with its senior researchers, course instructors and other mentors for ensuring that our students, postgraduate trainees and faculty at all career levels have formal and informal opportunities to observe, model, evaluate and discuss responsible research behaviors throughout their careers at Carolina. This plan is not intended to encompass the breadth of RCR education on our campus, but to define the core content and methodology required to give trainees a foundation to support lifelong learning in this area.

### Goals

This program will:

- Reinforce the University's commitment to excellence in research
- Introduce trainees to fundamental principles of Responsible Conduct of Research
- Provide an overview of terms, concepts and policies related to RCR
- Develop skills to identify and address ethical dilemmas in research
- Describe campus resources available to support researchers with RCR concerns
- Assess each trainee's mastery of core principles
- Foster a culture of open discussion of ethical dilemmas in classroom, laboratory and office settings

### Overview

RCR training is an important component of research education at Carolina regardless of discipline, career aspiration, or source of research support. However, the University recognizes specific obligations to certain federal sponsors. This plan is designed to meet the following requirements:

- NSF [Implementation of Section 7009](#) of the America COMPETES Act
- NIH training grants requirements as described in Notice [NOT-OD-10-019](#), Update on the Requirement for Instruction in the Responsible Conduct of Research

**Covered Population:** RCR training is strongly recommended for all graduate students, postdoctoral fellows, other postgraduate trainees and junior faculty, as well as undergraduate students engaged in research. For initial implementation (2010-11), participation is required for the following individuals:

- Undergraduate students, graduate students, postdoctoral researchers supported by NSF grants to the University. Support includes both salary support and funding for research expenses, e.g. dissertation improvement grants.
- Trainees at all career levels supported by NIH grants in programs defined by NOT-OD-10-019.

RCR training received during a previous career stage (e.g. undergraduate, graduate, postdoctoral, junior faculty), either at Carolina or elsewhere, does not exempt a trainee from this requirement.

**Requirements:** Training may be accomplished through a menu of options, but must include a didactic component introducing principles, terms and policies; a test of basic information; and an experiential component including facilitated discussion. For undergraduate students, the didactic component and test constitute sufficient formal training.

A list of qualifying programs will be maintained on the University's [Responsible Conduct of Research web site](#). Approved programs as of December 2009 are listed at the end of this document.

**Content:** A qualifying program will include the following elements:

- Research Misconduct
- Human Subjects Protection
- Animal Use
- Conflicts of Interest
- Data Management
- Mentor and Trainee Responsibilities
- Collaborative Research
- Authorship, Peer Review and Publication

The didactic component must include content for all elements. The experiential component must include facilitated discussion including case studies illustrating no less than four of these elements.

Undergraduate students, graduate students and most postdoctoral trainees will complete the requirement by enrolling in a qualifying course or program and successfully completing all course requirements. Faculty and postdoctoral trainees with previous RCR training may complete the experiential component by serving as an instructor or discussion group leader in a qualifying program.

**Timing and Frequency:** Trainees will complete a qualifying RCR program before the end of their first year of NIH/NSF support or within the support period if less than one year.

**Monitoring:** A searchable database will be created to record completion of qualifying programs. NSF-funded trainees and recipients of NSF dissertation awards will be screened against this

database semi-annually. Trainees and their mentors will be notified of incomplete training requirements and advised that completion of a qualifying program is a condition of eligibility for continuing support beyond the initial year.

### Roles and Responsibilities

**Program Direction:** Directors of approved programs will review and update course content to ensure adherence to the University Plan and inclusion of contemporary issues, and will maintain rosters of trainees completing all program requirements.

**Oversight:** A campus committee will designate courses, workshops and other programs that meet the University Plan's requirements and review approved programs for continued adherence to the University Plan. The oversight committee also will facilitate periodic workshops to identify and promote best practices in RCR training.

**Monitoring:** Semi-annual reviews of RCR training compliance and notification to trainees and their mentors will be conducted by the Research Compliance Program.

**Qualifying Programs as of July 2010:**

| Didactic Component                                                       | Experiential Component                                                           |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <a href="#">Office of Postdoctoral Affairs Research Ethics Training</a>  |                                                                                  |
| <a href="#">GRAD 721 – Research Ethics</a>                               |                                                                                  |
| <a href="#">School of Medicine RCR Summer Course</a>                     |                                                                                  |
| <a href="#">CITI On-line training</a> (select “RCR Course”)              | <a href="#">Biological &amp; Biomedical Sciences Program, First Year Seminar</a> |
| COMP 918: Research Administration for Scientists                         |                                                                                  |
| Other programs as approved by the National Institutes of Health*         |                                                                                  |
| For Undergraduate Students Only: <a href="#">CMDITR On-Line Training</a> |                                                                                  |

\*NIH-supported trainees completing RCR programs approved by the NIH in conjunction with an individual or institutional training grant will be deemed to have met the requirement for their participation in the associated training program. Short-term programs such as summer experiences, conferences and workshops may include RCR instruction components that are less extensive than those described in the University Plan but appropriate to the scope of the program.

To propose additional programs for review, please contact Juliann Tenney ([juliann\\_tenney@unc.edu](mailto:juliann_tenney@unc.edu), Ph: 843-9953).



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Research Support

Research Resources

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Responsible Conduct  
of Research

Postdoctoral Fellows

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Site map

## Services for researchers

### Instruction in Responsible Conduct of Research (RCR)

[Overview](#) | [RCR at Penn](#) | [Regulations](#)

#### Overview

It is expected that all researchers in the Penn community carry out their work according to the highest ethical and professional standards. Responsible Conduct of Research (RCR) Training is a framework for imparting these "best practice" standards, and is increasingly regarded as a critical component of scholarly and career development. For 20 years, Responsible Conduct of Research (RCR) training has been mandated for graduate students and postdoctoral fellows and faculty funded by NIH training grants and career awards, and there are new standards for this training as of January 24 th 2010: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html> . As of January 4 th 2010, RCR training is also required for undergraduates, graduate students, and postdoctoral fellows funded by the National Science Foundation (NSF) <http://edocket.access.gpo.gov/2009/E9-19930.htm>. Beyond these regulations, RCR training is strongly encouraged for *all* researchers, regardless of funding source or field of study. Accordingly, a number of academic programs at Penn are integrating RCR topics into their curricula. The recent expansion of RCR beyond biomedicine to a diversity of disciplines provides all investigators at Penn, from undergraduate to faculty member, with the opportunity to learn about the principles and practices that govern and enhance their work.

Topics covered in an RCR training program:

Publication Practices and Responsible  
Authorship

**Receive highly  
customized email  
alerts regarding  
funding opportunities**

**Provost Interdisciplinary  
Seminar Fund  
Deadline: May 23, 2011**

**Postdoctoral Fellowships  
for Academic Diversity  
Application Deadline:  
August 1, 2011**

#### School Research Pages

[Annenberg School for  
Communication](#)

[School of Arts and Sciences](#)

[School of Dental Medicine](#)

[Graduate School of Education](#)

[School of Engineering and  
Applied Science](#)

[School of Law](#)

[School of Medicine](#)

[School of Nursing](#)

[School of Social Policy and  
Practice](#)

[School of Veterinary Medicine](#)

[Wharton School](#)

Peer Review  
Mentor and Trainee Relationships  
Conflicts of Interest and Commitment  
Collaborative Research  
Data Acquisition, Sharing, and Ownership  
Research Misconduct  
Protection of Human Subjects  
Animal Welfare  
Contemporary Ethical Issues in Science

### **RCR at Penn**

Penn has a number of resources for RCR training, including an on-line course developed by the Collaborative Institutional Training Initiative (CITI). Please follow these instructions to identify the RCR training program that is appropriate for you:

**For students affiliated with Biomedical Graduate Studies (BGS),** contact Colleen Dunn at [dunncoll@mail.med.upenn.edu](mailto:dunncoll@mail.med.upenn.edu)

**For postdoctoral fellows affiliated with the Biomedical Postdoctoral Program (BPP),** contact Mary Anne Timmins at [timmins@mail.med.upenn.edu](mailto:timmins@mail.med.upenn.edu)

**For students and postdocs funded by NSF and not affiliated with BGS or BPP:** You are required to complete an on-line RCR course (<http://www.upenn.edu/research/rcr/citi.htm> ). You should be notified of course assignment through Knowledge Link <http://knowledgelink.upenn.edu> . If you are funded by NSF but have not yet been assigned an RCR course, contact the RCR support person for your school:

School of Arts and Sciences: Kathy Clawson [kclawson@sas.upenn.edu](mailto:kclawson@sas.upenn.edu)

School of Engineering: Tara Betterbid (postdocs) [tarabett@seas.upenn.edu](mailto:tarabett@seas.upenn.edu) or Janet Yeh (students) [jyeh@seas.upenn.edu](mailto:jyeh@seas.upenn.edu)

All other schools: Lynn Alexander [mmga@upenn.edu](mailto:mmga@upenn.edu)

**For students and postdocs funded by an NIH NRSA training grants and not affiliated with BGS or BPP:** If the RCR training plan in your grant application included completion of the on-line CITI RCR Course, go to <http://www.upenn.edu>

[/research/rcr/citi.htm](http://www.upenn.edu/research/rcr/citi.htm) for instructions on accessing this course. It is important that you consult with your mentor about the other components of your RCR training plan.

**For all other students, postdocs , or faculty members interested in or required to complete an online CITI RCR course** (for example, for a course or program): Go to <http://www.upenn.edu/research/rcr/citi.htm> for instruction on course access. Be sure to check with your mentor or professor to determine which course or modules you should complete.

## Regulations

### NSF RCR Training Requirements

Starting with new applications after January 4, 2010, all undergraduates, graduates, and postdoctoral fellows funded by NSF awards are required to complete RCR training. The requirement can be fulfilled by completing an on-line RCR course available through the Collaborative Institutional Training Initiative (CITI) and assigned by the schools through Knowledge Link. Instructions for accessing this program can be found here <http://www.upenn.edu/research/rcr/citi.htm>

To access the notice, go to <http://edocket.access.gpo.gov/2009/E9-19930.htm> .

Below is a summary of the elements of the requirement

#### ***Requirements effective January 4, 2010***

- At the time of proposal submission, institution must certify that the institution has a plan to provide appropriate training and oversight in RCR to undergraduates, graduate students, and postdoctoral researchers supported by NSF.
- Training plans are not required to be included in the submission to NSF (but are subject to review upon request by NSF).

- An institution must designate one or more persons to oversee compliance with the RCR training requirement.
- Institutions are responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received training in the responsible and ethical conduct of research.

### NIH RCR Training Requirements

Training grant and career award applicants are required to include a plan for their training in RCR. It is important to review the specific terms of the award announcement to determine what is required as this may vary with the type and level of award. However, NIH recently released a notice outlining new standards for RCR training and these requirements are effective January 25, 2010. Note that training plans must address in full the 5 instructional components: format, faculty participation, subject matter, duration, and frequency of instruction, *and that on-line training alone is not considered sufficient.*

NIH Notice: Update on the Requirement for Instruction in the Responsible Conduct of Research, November 24, 2009

To access this notice, go to <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>

Here is summary of the new requirements:

- Effective January 25, 2010 for new and renewal apps and January 1, 2011 for continuations
- Covers a broad range of training and career development awards

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.**

- Provides definition and six “basic

principles” of RCR that refer to value of training and importance of faculty participation

- RCR to be evaluated on the criteria of 5 “Instructional Components”: Format, Subject Matter, Faculty Participation, Duration, and Frequency
  - Format: On-line alone is not acceptable; “substantial” face-to-face discussion required; combination of didactic and small-group discussion is highly encouraged
  - Subject Matter: 9 topics to be covered
  - Faculty Participation: Training faculty and sponsors/mentors are highly encouraged to contribute to formal and informal instruction; senior fellows and awardees may fulfill their requirement by participating as lecturers or discussion leaders; rotation of faculty is suggested
  - Duration of Instruction: “Substantive contact hours” is required – minimum of eight contact hours; semester long courses preferred over single day workshops
  - Frequency of Instruction: Tailor RCR training to each career stage; must be taken once at each stage and at a frequency of no less than once every four years. Instruction beginning in graduate school is highly encouraged
- There are special considerations by type of award
  - **Institutional programs** (T’s, K12, K30) are encouraged to provide training for all individuals associated with the program regardless of their source of support
  - On-line training may be appropriate for **short-term programs** (i.e., those lasting less than 6 months)

- **Individual awardees** are encouraged to tailor their programs to their own needs (going beyond formal instruction...individualized plan to supplement institutional RCR program)
- Applications must include detailed plan covering above 5 criteria
- Peer Review: Plans for, and past record of, instruction in RCR will be rated as ACCEPTABLE or UNACCEPTABLE. Results of the review will be reported as an administrative note in summary panel with explanation. Applications with unacceptable plans will not be funded until plan is revised.
- Reporting Requirements
  - Continuation applications must describe RCR instruction in terms of 5 instructional components.
  - Reporting requirements are slightly different for each type of award
- Compliance: It is expected that course attendance is monitored and that a certificate or documentation of participation is available upon course completion. NIH expects the institution to maintain records sufficient to demonstrate that NIH-supported trainees, fellows, and scholars have received the required instruction.

### **Other Responsible Conduct of Research (RCR) Training Resources**

[Home](#) | [Penn A-Z](#) | [Directories](#) | [Calendar](#) | [Maps](#) |  [SEARCH](#)

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UT Home - > Research - > Office of Sponsored Projects - > Responsible Conduct in Research



## RESPONSIBLE CONDUCT IN RESEARCH

The University of Texas at Austin (UT-Austin) endorses Responsible Conduct of Research (RCR) on its campus and expects its employees and students to abide by pertinent rules, policies, guidelines and regulations.

### NSF

In January of 2010, The National Science Foundation (NSF) implemented Sections 7008 and 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act (Public Law 110-69-August 9, 2007).

**Section 7008** (42 USC 1862o) requires that all grant applications which include funding to support postdoctoral researchers include a description of the mentoring activities that will be provided for such individuals, and shall ensure that this part of the application is evaluated under the Foundation's broader impacts merit review criterion. Mentoring activities may include career counseling, training in preparing grant applications, guidance on ways to improve teaching skills, and training in research ethics. In addition, all progress reports for research grants that include funding to support postdoctoral researchers must include a description of the mentoring activities provided to such researchers.

**Section 7009** (42 USC 1862o-1) requires that all grant applications for financial assistance from the NSF for science and engineering research or education include a description in each 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. To that end, the Office of Sponsored Projects has developed procedures for meeting the minimum requirements that are available at no cost to the research community.

For those individuals in need of NSF-compliant training, the Office of Sponsored Projects (OSP) provides online RCR training modules through the Collaborative Institutional Training Initiative (CITI) at no cost to students, faculty, and staff. The modules cover: Misconduct; Responsible Authorship and Publication; Plagiarism; Conflict of Interest; Data Acquisition and Management; Responsible Peer Review; Responsible Mentoring; and Responsible Collaboration. This institutionally-sponsored training is *in addition to* any program-driven training offered to students by their respective colleges and departments.

These CITI modules provide the minimum training to augment discipline-specific training that must be provided by the college, department and/or supervisor.

The RCR modules are now available at <http://www.citiprogram.org/>

New users can register and begin their modules at their convenience. For ease of tracking, new users are encouraged to use their EIDs as their user names.

Available modules that users can select are:

- Biomedical Responsible Conduct of Research
- Social and Behavioral Responsible Conduct of Research
- Physical Science Responsible Conduct of Research
- Humanities Responsible Conduct of Research

Please contact Elena V. Mota for any questions you might have or for help using the site. [evmota@austin.utexas.edu](mailto:evmota@austin.utexas.edu)

### NIH

Additionally, the National Institutes of Health (NIH) has established policy that, "...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 conduct of research. This policy will take 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 conduct of research as stated in the relevant funding opportunity announcements." OT-OD-10-019

This fall, UT-Austin will announce a schedule of training workshops to assist individuals needing NIH-compliant training \*IF\* his/her department and mentor require additional training resources.

To register your intent to take NIH-specific RCR training, please send an email to: [evmota@austin.utexas.edu](mailto:evmota@austin.utexas.edu); you will receive a schedule of planned workshops and registration instructions when it is available.

## RCR VERBIAGE FOR APPLICATIONS

As required by NSF and NIH, any proposal submitted for funding consideration must contain a section describing mentoring activities and training in the responsible conduct of research.

For NSF, see: [http://www.nsf.gov/pubs/policydocs/pappguide/nsf10\\_1/aag\\_4.jsp](http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/aag_4.jsp) and <http://www.nationalpostdoc.org/publications/mentoring-plans/223-nsf-mentoring-requirement>

For NIH, see: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>

OSP does not provide writing services for the research community. However, the following language may help individuals craft their RCR section for an NRSA application. **NOTE:** this is just suggested language and does not replace nor supersede any language provided by an individual's faculty sponsor or college:

You should state whether or not you and your mentor/faculty supervisor have planned ethics "upkeep" during your program (i.e., meeting once a month, once a semester, annual RCR check-in...? Will you be taking any specific courses or training modules (e.g. CITI course, CW 512), etc.

### Institutionally:

The University of Texas at Austin (UT-Austin) endorses Responsible Conduct of Research on its campus and requires its employees and students to abide by pertinent rules, policies, guidelines and regulations. To that end, UT-Austin has established various resources to support the research enterprise of its faculty, staff and students:

**The Office of Sponsored Projects** provides at no cost online RCR training modules through the Collaborative Institutional Training Initiative (CITI) for students, faculty and staff. The modules cover: Misconduct; Responsible Authorship and Publication; Plagiarism; Conflict of Interest; Data Acquisition and Management; Responsible Peer Review; Responsible Mentoring; and Responsible Collaboration. This institutionally-sponsored training is in addition to any program-driven training offered to students by their respective colleges and departments.

The Office of Research Support is responsible for three main areas: the Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC), and the Institutional Biosafety Committee (IBC). The goal is to promote the responsible conduct of research conducted by faculty, staff, and students complies with all applicable laws, regulations, and University policies.

**Human Subjects** <http://www.utexas.edu/research/rsc/humansubjects/>

**Animal Subjects** <http://www.utexas.edu/research/rsc/iacuc/>

**rDNA and Biosafety** <http://www.utexas.edu/research/rsc/ibc/>

The Institutional Biosafety Committee has a training module (CW 512) that specifically covers the NIH rules and regulations for rDNA research, including human gene transfer. <http://www.utexas.edu/research/rsc/ibc/training.html>

**The Graduate School** <http://www.utexas.edu/ogs/ethics/transcripts/intro.html> provides ethics training that includes modules on: 1) Human Research; 2) Animal Research; and 3) Academic Integrity.

**Handbook of Operating Procedures** <http://www.utexas.edu/policies/hoppm/tochop2.html> UT-Austin has a Research Integrity Officer and has an established process for handling suspected instances of scientific or other scholarly misconduct. The handbook is accessible by everyone online.

**The Information Security Office (ISO)** <http://security.utexas.edu/> The ISO's mission is to create a secure computing environment in which the university community can teach, learn and conduct research. All members of our community have a responsibility to do their part to support this mission.

**Intellectual Property (Copyright) Tutorial** <http://www.lib.utsystem.edu/copyright/> Policy: [http://www.utexas.edu/ogs/student\\_services/academic\\_policies/int\\_prop\\_tutorial.html](http://www.utexas.edu/ogs/student_services/academic_policies/int_prop_tutorial.html) Doctoral candidates are required to provide documentation of taking the university's Copyright Tutorial and passing the associated test. The tutorial may be taken anytime before turning in the dissertation, but students are advised to take it early in candidacy, as it is designed to educate the student on the frequently confusing and changing copyright laws.

You are here: [OR Home](#) > [For Students](#) > **Responsible Conduct of Research (RCR) Training**

## Responsible Conduct of Research (RCR) Training

### RCR Quick Links

#### RCR for Undergrad Students

[Register](#)  
[Complete](#)  
[Confirm Completion](#)

#### RCR for Grad Students and Postdocs

[Register](#)  
[Complete](#)  
[Confirm Completion](#)

---

### UW RCR Training Contacts

#### Undergraduate Students

For questions related to whether you are required to take RCR training, consult your Faculty Supervisor

For questions related to CMDITR RCR material or orientation to the modules, please contact the undergraduate research program [urp@u.washington.edu](mailto:urp@u.washington.edu)

#### Graduate Students

Contact your Graduate Program Advisor

#### Postdoctoral Researchers

Contact your Departmental Administrator

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### RCR Training Requirement Questions and Answers

When do I need to take the course again? [+]

Do NSF Fellows have to take RCR training? [+]

What proposals are impacted by the NSF requirement? [+]

Who gives me access / provides the username and password? [+]

If I'm a student, what department should I report as being affiliated with? [+]

How much time do I have to complete the RCR trainings in their entirety? [+]

Do PIs need to document in their proposals that RCR training will be provided? [+]

Are PIs, other faculty working on NSF grants, or staff required to take RCR training? [+]

If I'm volunteering my time on an NSF specific project or am participating in a NSF supported project for course credit, am I required to take RCR training? [+]

If a UW PI is conducting research supported by an NSF grant and the PI is working with a non-US student who is volunteering effort on the grant and working in Europe, does this student need to complete the RCR Training? [+]

If I am an individual who has transferred from another institution where an RCR requirement was in place, will any prior training be accepted by the UW, or will I have to take the RCR training

required and offered by UW? [+]

Does NSF have a Responsible Conduct of Research Frequently Asked Questions webpage? [+]

## **National Science Foundation (NSF) RESPONSIBLE CONDUCT OF RESEARCH (RCR) TRAINING REQUIREMENT \***

All University of Washington (UW) students and postdoctoral researchers supported by the National Science Foundation (NSF) are required to complete Responsible Conduct of Research (RCR) training in response to America COMPETES Act, section 7009. However, the RCR training required by the University of Washington differs for undergraduate students versus graduate students and postdoctoral researchers.

**RCR for Undergrad Students**

**RCR for Grad Students and Postdocs**

\* This RCR training does NOT meet NIH's educational requirement for research trainees to take Responsible Conduct of Research training (offered through the Biomedical Research Integrity Program).

### **OVERVIEW**

RCR Training is intended to help sensitize the university research community to the wide range of ethical and professional issues that must be considered to ensure a climate of research integrity.

Per H. R. 2272, section 7009 of the "America COMPETES Act," and the NSF Proposal and Award Policies and Procedures Guide (Grant Proposal Guide and Award and Administration Guide), RCR training is now required for all National Science Foundation (NSF) supported...

undergraduate students,  
graduate students, and  
post doctoral researchers.

### **DIFFERENCE in RCR TRAINING between CMDITR and CITI**

In response to the NSF RCR training requirement, the UW Office of Research now offers RCR training through CMDITR and CITI, on-line services providing research ethics education to all members of the research community.

CMDITR RCR training is a standardized RCR program covering a broad range of disciplines to meet sponsor requirements. The program is accessible to undergraduates with less prior experience in research, and is designed with the goal of teaching important key concepts and providing thoughtful educational feedback to users. Instructions for registering and completing CMDITR RCR Training. CITI RCR training is a multi-faceted standardized RCR program to meet sponsor requirements and expand the UW's commitment to provide UW graduate students and post docs with an exceptional academic experience. Instructions for registering and completing CITI RCR training.

### **OBJECTIVES OF RCR TRAINING**

Encourage best practices in the conduct of research and scientific investigations.  
Foster an ability to recognize an ethical choice and the ability to make a principled decision.  
Provide accessible educational opportunities and resources designed to help students and postdoctoral researchers meet the America COMPETES Act Responsible Conduct of Research training requirements.

### **NSF vs. NIH RCR requirements**

NSF RCR training requirements differ from NIH training requirements in that NSF requires that any

student or postdoctoral researcher supported by NSF receive RCR training. NIH requires only those individuals receiving training grants to undergo RCR training. UW offers RCR training that meets NIH RCR training requirements through the UW Biomedical Research Integrity Lecture Series.

### **UW RCR Training Implementation**

Download the powerpoint presentation NSF Responsible Conduct of Research (RCR)ppt file format

Please note: links displayed above beginning with /research/ are located at <http://www.washington.edu/research/>....



## University of Wisconsin-Madison Plan for NSF RCR Requirement

Effective January 4, 2010, the National Science Foundation (NSF), by mandate of the United States Congress in the America Competes Act, Section 7009, requires all undergraduate students, graduate students and postdoctoral researchers supported by NSF funding to receive training in the responsible conduct of research (RCR). The Campus RCR Committee was charged with making recommendations to address the campus obligation to satisfy the NSF Policy. Below outlines the baseline RCR training approach recommended by the Committee and approved by the Research Policy Advisory Committee and the Vice Chancellor for Research. All departments were asked to identify a RCR Coordinator to assist in ensuring compliance with this requirement.

At the time a proposal is submitted to the National Science Foundation, Kim Moreland, the Authorized Organizational Representative, certifies that the University of Wisconsin has a RCR training plan in place.

### University of Wisconsin-Madison Training Requirements

All undergraduate students, graduate students, and postdoctoral researchers supported by NSF funding must take the "Responsible Conduct of Research" course in Learn@UW (<https://learnuw.wisc.edu/>). Modules in the course include:

- Publication and Authorship
- Ownership Rights in Copyright
- Intellectual Property
- Conflict of Interest
- Data Fabrication and Falsification
- RCR Policies, Procedures, and Resources

### NSF Awards from January 4, 2010-July 15, 2010

All undergraduate students, graduate students, and postdoctoral researchers supported by NSF projects awarded since January 4, 2010, will have a three month window, until October 13, 2010, to complete Responsible Conduct of Research training in Learn@UW (<https://learnuw.wisc.edu/>) without consequences for non-

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#### Deans' Office

608/262-1044  
Fax: 608/262-5134

#### Graduate Admissions & Academic Services, Diversity Resources

608/262-2433  
Fax: 608/265-9505

#### Accounting

608/262-5835  
Fax: 608/262-5134

#### Human Resources

608/262-5802  
Fax: 608/262-5235

#### Professional Development and Engagement

608/262-1044  
Fax: 608/262-5134

completion. If training is not completed by October 13, 2010, the individual required to complete the training will be removed from the NSF award and paid with non-sponsored departmental funds.

### NSF Awards Issued after July 15, 2010

PIs receiving NSF funding for research will be notified of this requirement in the NSF Notice of Award. The Graduate School Office of Research Policy will also notify the PI and the department of the requirements via email. In addition, individuals who must complete training will be identified via payroll records and notified of their training requirements. Once an individual is notified of the requirement, he or she will have 30 days to complete the training module in Learn@UW (<https://learnuw.wisc.edu/>). Subsequent email notices will be sent as reminders to complete training. If the individual does not complete the training within the 30 day window, he or she will be removed from the NSF award and paid with non-sponsored departmental funds.

The Graduate School has created look-up tools to assist PIs and RCR Coordinators with tracking of completion requirements. Please login with your UW NetID and password.

#### Principal Investigators:

Investigator Awards: <https://my.gradsch.wisc.edu/nsfrcr/myInfo.pl>

#### RCR Coordinators:

All Trainees: <https://my.gradsch.wisc.edu/nsfrcr/allTrainees2.pl>

Award PI: <https://my.gradsch.wisc.edu/nsfrcr/awardInvestigators.pl>

Project PI: <https://my.gradsch.wisc.edu/nsfrcr/projectInvestigators.pl>

#### Questions

If you have questions or concerns regarding this new policy, please contact Heather Mc Fadden, Director of RCR Training, at [hnmcfadden@grad.wisc.edu](mailto:hnmcfadden@grad.wisc.edu) or call 608-890-2468.

Martin Cadwallader, Vice Chancellor for Research and Dean of the Graduate School



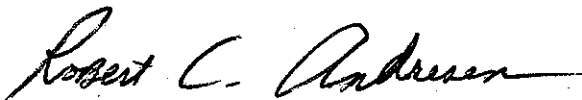
Date: 12/3/10

William Mellon, Associate Dean for Research Policy



Date: 12-03-10

*for* Kim Moreland, Director of Research and Sponsored Programs, University of Wisconsin-Madison Authorized Organizational Representative



Date: 12/6/10