

**UNIVERSITY OF CALIFORNIA  
SANTA BARBARA**

**National Science Foundation  
Responsible Conduct of Research  
Training Plan for Undergraduate  
Students, Graduate Students**

## I. Introduction

The America COMPETES Act of 2007 directed that the National Science Foundation require that each institution that applies for financial assistance from NSF for science and engineering research or education 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.

In responding to this requirement, the NSF published a revision to its NSF Proposal & Award Policies and Procedures Guide requiring that beginning January 4, 2010, institutions must certify that, at the time of proposal submission, 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 are supported by NSF. 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.

## II. Purpose

The purpose of this document is to outline UCSB's plan for the implementation of the NSF training requirement for the responsible conduct of research. The Office of Research developed the following training plan.

## III. General Standards

All members of the UCSB community are expected to follow the [\*Standards of Ethical Conduct\*](#), as adopted by the Regents of the University of California. Additionally, all members of the UCSB community engaged in research are expected to conduct their research with integrity and intellectual honesty at all times.

Ethical and responsible conduct of research is critical for excellence, as well as public trust, in science and engineering. Consequently, education in the responsible and ethical conduct of research is considered essential in the preparation of future scientists and engineers. As mentors, faculty members play an important role in shaping the next generation of researchers and are expected to instill these same high ethical standards in their students and postdoctoral researchers.

UCSB's RCR program is based on the core elements as identified by the NIH Office of Research Integrity.

1. Academic Fraud and Research Misconduct
2. Conflict of Interest and Conflict of Commitment
3. Human Subjects Protections
4. Use and Care of Animals
5. Data Acquisition, Management, Sharing and Ownership
6. Publication Policies and Responsible Authorship
7. Mentoring and Trainee Responsibilities
8. Peer Review
9. Collaborative Science

## IV. The Program

### A. NSF RCR Training Plan for Undergraduates

#### Identification of Undergraduate Students

- Business and Financial Services keeps a record of all undergraduate students paid from NSF awards. At least once annually, a report will be generated from the DataWarehouse listing all of these students.
- As they are identified in the report, students are contacted by the Office of Research and informed that they must participate in RCR training.

#### Training

- For undergraduate students supported by NSF grants, principal investigators will be responsible for ensuring that these students read a handout, [Introduction to the Responsible Conduct of Research \(RCR\): A Summary for Undergraduate Researchers](#), which was developed by UC San Diego for general use throughout the UC System.
- The handout is located on the Office of Research website: <http://www.research.ucsb.edu/>

#### Documenting Training

- Undergraduate students will be directed to reply via email to attest that they have read the handout.

### B. NSF RCR Training Plan for Graduate Students

#### Identification of Graduate Students

- All graduate students receiving NSF support will receive notification that RCR training is required.
- Business and Financial Services keeps a record of all graduate students paid from NSF awards. At least once annually, a report will be generated from the DataWarehouse listing all of these students.
- As they are identified in the report, graduate students are contacted by the Office of Research and informed that they must participate in RCR training.

#### Training

- All graduate students receiving NSF support are required to take online RCR training through CITI: <https://www.citiprogram.org/>
- The Office of Research sponsors an Ethics seminar series. Attendance is optional but encouraged. Upcoming seminars may be found on the Office of Research website: <http://www.research.ucsb.edu/>
- Graduate students are encouraged to seek mentorship from their faculty advisors. A list of appropriate content is found on the Office of Research website.

### **Documenting Training**

- A completion report is downloaded from CITI at least once annually, by Research Compliance staff.
- The CITI report is compared against the payroll records from the DataWarehouse.
- Graduate students will be reminded of the training requirement until they have successfully completed the training.
- Ethics seminar attendees sign in and the Office of Research stores attendance records.

## **C. NSF RCR Training Plan for Postdoctoral Researchers**

### **Identification of Postdoctoral Researchers**

- Business and Financial Services keeps a record of all postdoctoral researchers (postdocs) paid from NSF awards. At least once annually, a report will be generated from the DataWarehouse listing all of these students.
- As they are identified in the report, postdocs are contacted by the Office of Research and informed that they must participate in RCR training.

### **Training**

- Postdocs supported by an NSF award are required to take online RCR training through CITI: <https://www.citiprogram.org/>
- The Office of Research sponsors an Ethics seminar series. Attendance is optional, but encouraged. A list of upcoming and past seminars may be found on the Office of Research website: <http://www.research.ucsb.edu/>
- Postdocs are encouraged to seek mentorship from their faculty advisors. A list of appropriate content is found on the Office of Research website.

### **Documenting Training**

- A completion report is downloaded from CITI at least once annually, by Research Compliance staff.
- The CITI report is compared against the payroll records from the DataWarehouse.
- Postdocs will be reminded of the online training requirement until they have successfully completed the training.
- Ethics seminar attendees sign in and the Office of Research stores attendance records.