

# California Institute of Technology

## Responsible Conduct of Research (RCR) Training For Students and Postdoctoral Researchers Supported by NSF or as Trainees on NIH Training Grants

### Background and Purpose:

NSF: Since January 2010 NSF has had a requirement that all institutions proposing support for students (undergrad and graduate) and postdocs certify in their proposals that the institution has a plan in place for training those students and postdocs in the responsible conduct of research. NSF's position is that 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.

NIH: In 1989, the NIH published its first policy requiring instruction in the responsible conduct of research-practicing scientific investigation with integrity. The current NIH policy requires that all trainees, fellows, participants, and scholars receiving support through any NIH training, career development award (individual or institutional), research education grant, and dissertation research grant must receive instruction in responsible conduct of research.

This document represents Caltech's plan for providing education in the responsible conduct of research for all NSF-supported student and postdoctoral researchers as well as the applicable NIH trainees, fellows, and scholars.

### Oversight:

In order to ensure the success of Caltech's RCR program, the Vice Provost for Research is designated as the individual with overall responsibility for oversight of the program. The Vice Provost will lead a committee comprised of the Dean of Students, the Dean of Graduate Studies, the Director of Research Compliance, the Associate Vice President for Research Administration and the Associate Vice President for Human Resources.

### Plan:

All students or postdocs who must take RCR training will receive notice from either the Graduate Office (students) or the Office of Research Compliance (postdocs). The student or postdoc must fulfill his/her requirement per applicable training plan(s), below, in a timely fashion. Failure to fulfill the requirement may result in a hold on a student's registration or may compromise the student's or postdoc's continued NSF or NIH funding.

### NSF RCR Training:

All NSF-supported students and postdocs at Caltech must take and pass the Collaborative Institutional Training Initiative (CITI) course in Responsible Conduct in Research, which will include as a minimum the following modules:

Responsible Conduct of Research (RCR) Course Introduction & Conclusion

Research Misconduct  
Data Acquisition and Management  
Responsible Authorship and Publication  
Responsible Mentoring  
Conflicts of Interest and Commitment  
Collaborative Research

Participants' progress will be tracked and recorded with the intent that all participants complete the program by the end of the first full academic term during which they are supported by NSF funds. If a student or postdoc can document having passed a similar, qualifying program at Caltech or another institution, Caltech will accept that in place of completing Caltech's program. Completion of Bi252 will satisfy the NSF RCR requirement.

NIH RCR Training:

NIH requires substantial face-to-face training for successful completion of the RCR requirement. To fulfill this requirement, students or postdocs must successfully complete Bi252, Responsible Conduct of Research, which is offered in the Fall Term and covers:

Authorship and Peer Review  
Mentoring  
Scientific Misconduct  
Conflicts of Interest  
Intellectual Property  
Animal Subjects  
Human Genomes  
Human Subjects

Instruction must be taken at least once during each career stage of the individual, and not less than once every four years. This means that a student who takes this course while an undergraduate or a graduate student at Caltech, may need to retake the course as a graduate student or postdoc at Caltech, if he/she continues to be paid under the same or new NIH training grant or fellowship. It also means that if an NIH funded student or postdoc took a qualifying course at another institution during a different career stage (i.e. as a graduate student and is now a postdoc) or more than three years prior in the same career stage (i.e. as a postdoc, is still a postdoc, but took the Caltech course or other institution course more than three years ago), he/she must take the course at Caltech.

Participants' progress will be tracked and recorded with the intent that all participants complete the program by the end of the first full academic term during which they are supported by NIH funds. Participants may take the course before the funding is awarded.

RCR PROCESS  
(Desk Procedure)

**Identification:**

The Office of Sponsored Research will provide Human Resources with a list of applicable grants, fellowship and contracts.

Human Resources will generate a list of students (undergraduate and graduate) and a separate list of postdocs who must fulfill either the NSF or NIH requirement. This list will be provided to the Graduate Dean's Office (students) or the Office of Research Compliance (postdocs).

**Notice:**

The Graduate Dean's Office will notify the students of their obligation to complete the NSF or NIH RCR coursework and will track and document completion.

The Office of Research Compliance will notify the postdocs of their obligation to complete the NSF or NIH RCR coursework and will track and document completion.

**Reminders/Warnings:**

A reminder will be issued approximately once a month to the postdocs until the training is complete.

**NSF**

In the case of NSF training which is available year-round, a warning will be issued to the student or postdoc, his/her PI and Division, if the training is not complete by the end of the first full academic term during which they are supported by NSF funds.

A letter will be sent to all NSF funded faculty PI's once a year to remind them of their obligation to ensure their students and postdocs have fulfilled this requirement.

**NIH**

In the case of NIH training which is only offered during the Spring Term, an additional reminder will be issued prior to the class start in the Spring Term. A warning will be issued to the student or postdoc, his/her PI and Division, if the training is not completed by the end of Spring Term of the first full year during which they are supported by NIH funds.

**Consequences:**

Failure to comply with these training requirements may result in a suspension of NSF or NIH funding.

**Documentation:**

The Graduate Dean's Office will track compliance of the undergraduate and graduate students.  
The Office of Research Compliance will track compliance of the postdocs.

This Documentation will be shared with the Divisions in order to maintain appropriate award records.