



**SAN DIEGO STATE
UNIVERSITY**

Responsible Conduct of Research Training Plan

Developed by
Graduate and Research Affairs
Division of Research Affairs

1. Background and Rationale

Training in responsible and ethical research practices is an integral part of preparing academic professionals to conduct research. Both the National Science Foundation (NSF) and the National Institutes of Health (NIH) have requirements for training in the Responsible Conduct of Research (RCR).

NSF: Effective January 4, 2010, proposals submitted to NSF must include certification from the institutional official 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 supported by NSF to conduct research.”*

Federal Register Notice announcing NSF’s final implementation published on August 20, 2009: <http://edocket.access.gpo.gov/2009/E9-19930.htm>

NIH: Effective January 25, 2010 “...any NIH training, career development award (individual or institutional), research education grant, and dissertation research grant must receive instruction in responsible conduct of research.” These are listed as: **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** proposals and renewals must address the training plan for instruction in RCR.

NIH RCR training requirement policy update published on November 24, 2009: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html>

2. San Diego State University (SDSU) Policy for Training in Responsible Conduct of Research: SDSU supports training to ensure the highest ethical and professional standards for conducting research. RCR training is intended to promote awareness of principles and practices that facilitate ethical and responsible research across all areas of research and scholarship. The Division of Research Affairs (DRA) developed this plan with input from the research community (i.e. administrators, faculty, students and post-doctoral researchers) which has the primary responsibility for carrying out RCR training. The plan’s flexibility permits training to be appropriate for the discipline and career stage.

3. Training Plan: This working document describes the plan developed by SDSU to provide training in RCR. At this time, only those individuals required to receive training must comply with the training plan; however, all students, staff and faculty engaged in research are encouraged to receive appropriate training.

3.1 General Training Objectives: The terminal objective is to enhance scientific integrity by training the learner in the accepted standards and norms of science. The enabling objectives of RCR training are as follows:

- a) Increase awareness of ethical dimensions of research/scholarship;
- b) Develop and refine the skills needed to question, analyze, and resolve ethical dilemmas;

- c) Learn relevant legal, institutional and professional standards;
- d) Know where to access various campus, national and internet resources that address ethical and responsible research practices; and,
- e) Facilitate discourse with peers and with faculty about ethical dimensions of research within their discipline.

3.2 Training Content: RCR training generally includes coverage of the following topics, though this list is not meant to be exhaustive nor comprehensive:

Research Misconduct (Fabrication, Falsification, Plagiarism)
Research Subject Protection (animal and/or human)
Conflict of Interest
Collaboration
Data Management
Mentoring
Peer Review
Authorship
Publication
Biosafety/security
Whistleblowing

SDSU's plan for training in RCR includes most, if not all, of these topics; however, content may vary depending on the needs of the trainee and relevance to the discipline or project.

3.3 Training audience: As noted above, some students, post-doctoral researchers and faculty are required to complete training depending on stipulations from the funding agency. However, any individual (i.e. student, post-doctoral fellow, staff, faculty) engaged in research is eligible and encouraged to complete RCR training.

3.4 Training Options: In the absence of prior training, all trainees will complete a web-based program on Responsible Conduct of Research at https://nationalethicscenter.org/index.php?option=com_rcrtutorial as soon as possible after beginning work on the project.

Completion of this on-line training will meet the minimum training requirement for all trainees, and will be considered sufficient training for those on funds for less than 90 days. Students and post-doctoral researchers who receive NSF support for more than 90 days are encouraged to complete additional RCR training, in addition to the web-based tutorial. Those funded through designated NIH support are expected to complete at least eight hours of "contact time" as part of ongoing training as per the [NIH update](#). Additional training can be obtained in a variety of ways. The DRA is developing a resource list of lectures, workshops, and courses that are available for RCR training. Likewise, training may be offered within a specific center, laboratory, department and college. Opportunities for RCR training may be available through existing courses and within the research setting.

The faculty supervisor is responsible for ensuring that eligible trainees receive training within a year of the project's start. The RCR Training website is being developed to

assist in documenting training so that the DRA, SDSURF, faculty member and student have a record of training completed.

If human subjects, animal subjects or biohazardous materials will be used, the trainee must also complete training through the Human Research Protection Program tutorial or the Animal Care and Use tutorial and/or the biosafety training through the DRA in advance of working with human or animal subjects or biohazardous materials.

RCR training opportunities:

a. University

- The Division of Research Affairs offers a 1-unit seminar in research ethics (INT_S 690) each semester. Students who successfully complete this course do not necessarily need to also complete the on-line training; individual program requirements may vary.
- DRA is developing a RCR web page that will include a resource list of lectures, workshops, and courses available for RCR training.
- Training in animal/human research subjects protection and biosafety will be provided by the Institutional Animal Care and Use Committee (IACUC), Institutional Review Board (IRB), and Institutional Biosafety Committee (IBC) respectively.

b. Department/College

Courses offered by the department that include coverage of topics associated with RCR may be used in lieu of INT_S 690. Other methods for obtaining RCR training include:

- Departmental meetings
- Laboratory or center journal club and research meetings
- Seminar series and discussion groups
- Professional association communications

If any of these methods are used to satisfy the training requirements, appropriate documentation should be forwarded on to DRA or available on request.

c. Supplementary Education

Supplementary education may be offered by the faculty member. For guidance on developing RCR education, please visit the [Office of Research Integrity](#), [Research Ethics.Net](#), [Online Ethics Center](#) and [Ethics in Science and Engineering National Clearing House](#)

d. Trainees enrolled in a joint doctoral program are eligible to take relevant courses at either institution to obtain training, and documentation of successful completion should be forwarded to the Division of Research Affairs.

3.5 Prior training: RCR training obtained from another institution within the past 18th months is acceptable; verification of training completion should be submitted to the project's faculty supervisor who will be responsible for forwarding on to the Division of Research Affairs.

4. Responsibilities:

- a) The University Research Council (URC) will be informed of training requirements and associated institutional responsibilities and be asked to provide input to guide decisions related to compliance requirements.
- b) The Vice President for Research will identify resources necessary to provide training in responsible and ethical research practices.
- c) DRA will develop and maintain the RCR training plan, identify RCR training options, and facilitate documentation.
- d) SDSURF will identify and notify persons required to complete training.
- e) DRA will verify compliance with minimal training requirements and notify PIs and students of noncompliance.
- f) The department/college will work with faculty to identify and/or create program and discipline-specific research ethics resources/materials that meet the needs of their trainees.
- g) Faculty/Principal Investigators are responsible for:
 - Working with SDSURF to identify trainees required to complete RCR training associated with funding requirements.
 - Verifying that trainees have completed baseline RCR training requirements as described in this plan.
 - Documenting additional RCR training received when such additional training is required and providing documentation to DRA upon request.
 - If appropriate, providing such training.
- h) Trainees are responsible for:
 - Accessing and completing baseline RCR training, and retaining a copy of documentation of training.
 - Maintaining documentation of additional training.

5. RCR Plan Assessment: The primary objective is to enhance scientific integrity by training scholars in the accepted standards and norms of science. RCR training is intended to promote awareness and understanding of conventions within and across disciplines. The RCR training plan will be assessed periodically by the URC and/or a standing RCR advisory group who will provide recommendations to the Director of Research Affairs and the Vice President for Research.