Purpose

The purpose of this document is to outline the School of Education and Policy (SESP) plan for meeting the National Science Foundation's (NSF) requirement for training in the responsible conduct of research (RCR).

Background

The federal America Competes (America Creating Opportunities to Meaningfully Promote Excellence In Technology, Education and Science) Act of 2007 requires that at a minimum, all students (undergraduate and graduate) and postdoctoral scholars with salary support from NSF receive training in the responsible conduct of research. This requirement became effective for all NSF projects submitted and awarded on or after January 4, 2010, including competitive renewals and supplements.

NSF expects each institution to determine the content and delivery method that will meet that institution’s specific needs for RCR training. Northwestern University and individual investigators are not required to submit a training plan or evidence of compliance in progress reports. However, training plans and appropriate verification of training compliance must be available upon audit.

Some institutions have elected to meet the RCR requirement solely via web-based delivery - provided either by the Collaborative Institutional Training Initiative (CITI) or custom-developed modules. At Northwestern, the expectation is that for graduate students and postdoctoral fellows, on-line training must be combined with seminar/discussion-based content. The web-based training program provided by CITI is considered to be adequate for Northwestern undergraduate researchers.

Individual schools at Northwestern University are charged with the responsibility to develop a plan to provide appropriate training and oversight in RCR.

SESP Implementation

Undergraduate researchers funded on NSF awards in SESP

In SESP, we will follow the Northwestern RCR recommendation for undergraduate students supported by NSF:
• Undergraduate researchers must complete the following modules of the online CITI course and obtain a passing grade of at least 80% on the accompanying quizzes:
  
  o Introduction to the Responsible Conduct of Research
  o Authorship
  o Collaborative Research
  o Conflicts of Interest
  o Data Management
  o Mentoring
  o Peer Review
  o Plagiarism
  o Research Misconduct

• All undergraduate students supported on NSF grants must complete the online CITI RCR course within 60 days after their salary is first charged to the NSF grant.

• It is the responsibility of the project PI of NSF grants to inform the undergraduate students about the RCR requirement.

• Effective September 2015, RCR training will be managed through Northwestern University’s new training management system, Learn@Northwestern. Undergraduate students supported by NSF grants will receive notifications about required training assignments from this system. The SESP Dean’s Office will assist project PIs in tracking and achieving compliance.

• Undergraduate payees who have not completed the training within 60 days will be asked to cease work on the grant until training is completed.

• Salary costs for students who have not completed the required training within 60 days are unallowable and will be removed from the grant and charged to the faculty member’s non-sponsored, “faculty” account.

The on-line CITI module alone satisfies the Northwestern RCR expectation for undergraduate researchers.
Graduate Students and Postdoctoral Fellows funded on NSF awards in SESP

PhD students and postdocs with NSF funding require both the on-line, CITI course and a face-to-face, discussion-based seminar (F2F Seminar).

On-line, CITI Requirement:

NSF-funded graduate students and post-docs are required to successfully complete the required CITI modules at their earliest convenience upon receiving salary funding from NSF.

For graduate students and post-docs, the on-line, CITI training component can be met as follows:

- Graduate students and post-docs must complete the following modules of the online CITI course and obtain a passing grade of at least 80% on the accompanying quizzes:
  - 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

- All graduate students and post-docs supported on NSF grants must complete the online CITI course at their earliest convenience upon receiving salary funding from NSF.

- It is the responsibility of the project PI of NSF grants to inform the NSF graduate students and post-docs about the RCR requirements.

- The on-line CITI course is available via the Collaborative Institutional Training Initiative (CITI) via https://www.citiprogram.org/.

- The SESP Dean’s Office will assist project PIs in tracking and achieving compliance.

F2F Seminar Requirement:

The F2F Seminar, listed as LRN_SCI 519 in CAESAR and in Learn@Northwestern, will be met via a 4-hour, mandatory seminar led by Professor Reed Stevens with
required readings assigned in advance. This seminar will be offered two times per year – in the fall and spring. The following topics will be covered:

- Conflict of Interest
- Human Subject Research
- Mentor/mentee responsibilities and relationships
- Collaborative Research
- Peer Review
- Data acquisition, management, sharing and ownership
- Research misconduct
- Responsible authorship and publication
- The societal impacts of research

Graduate students will register for the F2F Seminar through CEASAR. The course number is LRN_SCI 519.

Postdoctoral trainees will register for the F2F Seminar through Learn@Northwestern. The course is listed as LRN_SCI 519.

If the F2F Seminar is not completed within one year of the trainee first being charged to the grant, all salary charges for the trainee will be removed from the grant and charged to the PIs non-sponsored, “faculty” account until RCR training is complete. If the graduate student or postdoc leaves the NSF project before the one year training deadline is met, all salary charges will be removed from the grant and transferred to the PIs non-sponsored, “faculty” account.