

Black Hills State University's Institutional Training Plan for the Responsible and Ethical Conduct of Research

Background

Responsible and Ethical Conduct of Research (RECR) is the recognized set of ethical and professional standards for conducting research. Black Hills State University is committed to maintaining the integrity essential for research conducted by faculty, students, and staff regardless of discipline or funding source.

The requirement specified in the America COMPETES Act, as amended, to have a plan to provide training in RECR to faculty and other senior personnel supported by the National Science Foundation (NSF), went into effect on July 31, 2023. The updated RECR includes generating and disseminating knowledge with rigor and integrity, but also:

- a. conducting peer review with the highest ethical standards;
- b. diligently protecting proprietary information and intellectual property from inappropriate disclosure; and
- c. treating students and colleagues fairly and with respect.

At the time of proposal submission to NSF, BHSU's Authorized Organizational Representative must certify that BHSU has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, postdoctoral researchers, faculty and other senior personnel who will be supported by NSF to conduct research. Training plans are not required to be included in the proposal submitted to NSF but are subject to review upon request from NSF. NIH has enacted a similar policy for all individuals supported through any NIH training, career development award, research education grant, and dissertation research grant.

If an NSF or NIH proposal submitted after July 31, 2023 is awarded, all undergraduates, graduate students, postdoctoral researchers, faculty and other senior personnel supported by the project must receive training in RECR. NSF recommends RECR training, including mentorship training, every four years pre-PhD and at every career stage post PhD.

BHSU Plan for Responsible and Ethical Conduct of Research Training

All students (undergraduate and graduate), postdoctoral researchers, faculty and senior personnel participating in research must participate in RECR training. If the research involves human subjects or animals, training and certification in these areas is required in compliance with federal regulations. There is no single way to conduct research or creative activities, but several common instructional topics in RECR have been identified:

- Data Acquisition, Management, Sharing, and Ownership
- Human Subjects
- Animal Subjects
- Conflicts of Interest and Commitment
- Peer Review
- Collaboration
- Publication/Authorship
- Mentorship
- Research Misconduct
- Lab Safety
- Sexual harassment
- Reproducibility and Replicability in Science

Faculty PIs have the primary responsibility for ensuring that students participating in research complete the required RECR training. BHSU's RECR training will include the following components:

A. On-line Modules

All faculty and students must complete one of the RECR courses appropriate to their discipline through the Collaborative Institutional Training Initiative (CITI). The online training should take between 2-3 hours to complete and can be found at <http://www.citiprogram.org>. The available courses 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
- Responsible Conduct of Research for Engineers
- Responsible Conduct of Research for Administrators

B. Individual Training by Principal Investigator (PI)/Project Director (PD)

All student and postdoctoral researchers must be provided continuing education in RECR topics specific to their research setting. Such training will be overseen by the PI/PD and will consist of interactive discussions during group meetings and/or one-on-one discussions on the topic between the PI/PD and the trainee. The PI/PD will maintain a record of training sessions provided to each student or postdoctoral researcher. The records may be used for proof of training if requested by the campus ORA or NSF.

C. Responsibilities of the Principal Investigator

- i. The PI is responsible to complete the on-line RECR training, and to ensure that Co-PIs and other senior personnel on the project also complete the training.
- ii. The PI is responsible to ensure that the online RECR training requirement is specified in the offer letter for any student or postdoctoral researcher being hired for a position under the affected research project.
- iii. Undergraduate students who are appointed to the research project must also be informed of the RECR training requirement.
- iv. The PI is responsible to ensure that informal instruction occurs throughout the research training experience. It is up to the individual PIs to determine the appropriate approach(es) to informal instruction (lab meetings, reviewing articles, discussing case studies from the CITI program, etc.).
- v. The PI is responsible to ensure that the students and postdoctoral researchers are aware of the university's policies on conflict of interest, human and animal subjects in research, laboratory practices, and research misconduct.

RECR TRAINING THROUGH THE CITI PROGRAM MUST BE COMPLETED WITHIN 30 DAYS OF THE PROJECT START DATE.

Oversight and Contacts

The Office of Sponsored Programs will track and record names, start dates, and RECR training completion dates of all affected students and postdoctoral researchers when payroll authorizations are processed. Copies of certifications for all students who successfully complete RECR training will be retained in the Office of Sponsored Programs. Certifications are also available via the CITI website.

Oversight of the Responsible and Ethical Conduct of Research Training is a responsibility shared by the Principal Investigator and the university and is coordinated by the Chief Research Officer, the IRB/IACUC Chair, and the Office of Grants and Sponsored Programs.

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Additional Resources

For additional information, please visit the following websites:

<http://oir.nih.gov/sourcebook/ethical-conduct/responsible-conduct-research-training>

<http://ori.hhs.gov/ori-introduction-responsible-conduct-research>

<http://www.nsf.gov/od/recr.jsp>