

The Responsible Conduct of Research (RCR) 0-Credit Hour Short Course for Research Investigators

Fall 2021 Course Syllabus

COS 5390.001, The Responsible Conduct of Research (RCR): 0 hours.

Purpose (from NOT-OD-10-019)

Responsible conduct of research is defined as the practice of scientific investigation with integrity. It involves the awareness and application of established professional norms and ethical principles in the performance of all activities related to scientific research.

Basic Principles (from NOT-OD-10-019)

The following principles are based on several key concepts about responsible conduct of research and best practices that have evolved over the past two decades' experiences:

1. Responsible conduct of research is an essential component of research training. Therefore, instruction in responsible conduct of research is an integral part of all research training programs, and its evaluation will impact funding decisions.
2. Active involvement in the issues of responsible conduct of research should occur throughout a scientist's career. Instruction in responsible conduct of research should therefore be appropriate to the career stage of the individuals receiving training.
3. Individuals supported by individual funding opportunities such as fellowships and career development awards are encouraged to assume individual and personal responsibility for their instruction in responsible conduct of research.
4. Research faculty of the institution should participate in instruction in responsible conduct of research in ways that allow them to serve as effective role models for their trainees, fellows, and scholars.
5. Instruction should include face-to-face discussions by course participants and faculty; i.e., on-line instruction may be a component of instruction in responsible conduct of research but is not sufficient to meet the NIH requirement for such instruction, except in special or unusual circumstances.
6. Instruction in responsible conduct of research must be carefully evaluated in all NIH grant applications for which it is a required component.

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Class Schedule: M 1:00pm-1:50pm, Chemistry 352
Office Hours: TBD

Lectures:

Lecture 1: Research Integrity and Misconduct

Objectives: History of research, examples of misconduct; social context of research; consequences of unethical research.

Lecture 2: Policies, Regulations, and Current Issues

Objectives: Federal, state, institutional regulations and limitations of regulations and policies; current issues

Lecture 3: Integrity and Ethics

Objectives: conflicts of interest; common ethical issues; ethical principles; preventing ethical problems in research; biases.

Lecture 4: Ethical Considerations in Data

Objectives: Confidentiality and transparency; sampling and data selection; data longevity; research design; data reporting.

Lecture 5: Publication and Responsible Authorship

Objectives: Responsibilities of authorship; plagiarism; responsible disclosure; privacy; ethical standards; peer review.

Lecture 6: Animal Care and Use (IACUC)

Objectives: Ethical considerations in animal subjects; animal welfare; record keeping; humane care.

Lecture 7: Lab Safety

Objectives: biosafety compliance; lab safety; environment and safety plan; emergency protocols.

Lecture 8: Human Subjects Research

Objective: IRB process; record keeping; protections for human subjects; exempt research; investigator responsibilities

Additional Information:

1. According to University policy, the grade of I (incomplete) cannot be given as a substitute for a failing grade in a course.

2. Statement of ADA Compliance: The College of Science cooperates with the Office of Disability Accommodations to make reasonable accommodations for qualified students with disabilities. If applicable, please present your request along with an official written verification from the ODA before the end of the first week of classes.