

Responsible Conduct of Research Training Requirements
Research Integrity Assurance
Procedure #2025-001
June 13, 2025

A. Introduction:

UAB's Research Misconduct Policy establishes an aspiration for all researchers in achieving "high ethical standards of research." Accordingly, this Procedure, issued by the Research Integrity Officer and the Responsible Conduct of Research Coordinator, establishes expectations of continued professional training in foundational principles of scientific integrity for all UAB researchers.

The Responsible Conduct of Research ("RCR") Requirements apply to all UAB affiliated scholars engaged in organized research, research development, research training, innovation commercialization, clinical research, or any other form of independent inquiry designed to contribute to generalizable knowledge.

The RCR Requirements are designed to instill foundational knowledge and ethical principles critical to scholarly inquiry. These curricular elements aim to prepare trainees and reinforce leaders for the complexities of research by fostering an understanding of scholarly integrity, methodological rigor, and the implications of research within broader societal contexts.

Overall, researchers at UAB must complete the minimum-required curriculum for each cohort. Researchers must renew an RCR-focused curriculum, as described for relevant cohorts, every four years.

Separately, compliance training (e.g., Human Research Subjects, Animal Research Subjects, Controlled or Hazardous Substances, or Research Security obligations) are monitored at the component compliance-level and are a crucial augmentation of the expectations set forth in the RCR Requirements. Researchers must remain cognizant, for example, that for Human Research Subjects, an Institutional Review Board (IRB) application will be paused pending all researcher's compliance with the IRB's specific and separate training requirements which augment the expectations of this specific RCR Requirement and may require renewal at different times.

B. Responsible Official: RCR Coordinator Reporting to the Associate Vice President for Research Compliance.

C. Procedural Description of UAB's RCR Requirements:

Following are career-stage minimum expectations of all UAB Researchers:

1. Undergraduate Students:

a. Curriculum:

i. Foundational Self-Paced Component (online):

Required CITI Program® Course Entitled: “RCR Abbreviated Course for Undergraduate Students”

The Self-Paced Component requires successful completion of the 6 required modules in the CITI Program® Course Entitled: “RCR Abbreviated Program for Undergraduates” as measured by a quiz score of 80% or greater for each module:

Required CITI Program® Modules:

- Authorship (RCR-Basic) (ID 16597)
- Collaborative Research (RCR-Basic) (ID 16598)
- Data Management (RCR-Basic) (ID 20896)
- Plagiarism (RCR-Basic) (ID 15156)
- Research Misconduct (RCR-Basic) (ID 16604)
- Research, Ethics, and Society (RCR-Basic) (ID 15198)

Optional/Encouraged CITI Program® Modules:

- Conflicts of Interest and Commitment (RCR-Basic) (ID 16599)
- Mentoring and Healthy Research Environments (RCR-Basic) (ID 20983)
- Peer Review (RCR-Basic) (ID 16603)
- Research Involving Human Subjects (RCR-Basic) (ID 13566)
- Using Animal Subjects in Research (RCR-Basic) (ID 13301)

ii. Practicum / Case-Based Component (in person):

Supplemental Practicum and Case-Based training, which reinforces information within the online modules, is strongly encouraged, but not required for Undergraduate students engaged in limited-scope research endeavors.

b. Timing and Renewal:

To meet these expectations, undergraduate students engaged in research activities at UAB are required to complete RCR training described herein prior to the start of the research experience.

Undergraduate researchers are not subject to a renewal obligation. Instead, next-level cohort training is required as the researcher advances academically and/or professionally.

c. Institutional Documentation and Program Evaluation

Successful completion of the required and optional online CITI Program® modules is documented directly via CITI Program® and captured in UAB's Research Administrative Systems for verification purposes.

Documentation will be housed by the UAB Office of Undergraduate Research. Metrics to evaluate the success of the proposed undergraduate RCR training plan include:

- Percentage / number of undergraduates who successfully complete on-line training based on the overall number required.
- Feedback from course directors and/or research mentors regarding undergraduates' knowledge and practice of RCR in a research setting.

2. Masters Students:

a. Curriculum:

i. Foundational Self-Paced Component (online):

Required CITI Program® Course Entitled: "RCR Basic Course"

The "RCR Basic Course" includes the following modules:

- Authorship (RCR-Basic) (ID 16597)
- Collaborative Research (RCR-Basic) (ID 16598)
- Conflicts of Interest and Commitment (RCR-Basic) (ID 16599)
- Data Management (RCR-Basic) (ID 20896)
- Financial Responsibility (ID 16601)
- Mentoring and Healthy Research Environments (RCR-Basic) (ID 20983)
- Peer Review (RCR-Basic) (ID 16603)
- Plagiarism (RCR-Basic) (ID 15156)
- Research, Ethics, and Society (ID 15198)
- Research Involving Human Subjects (RCR-Basic) (ID 13566)
- Research Misconduct (RCR-Basic) (ID 16604)
- Using Animal Subjects in Research (RCR-Basic) (ID 13301)
- Engineering Students Only: Environmental and Social Dimensions of Engineering Research (ID 12835)

The Self-Paced Component requires successful completion of the CITI Program Course Entitled: "RCR Basic Course" measured by a quiz score of 80% or greater for each module.

ii. Practicum / Case-Based Component (in person):

The Practicum / Case-Based Component of the Masters-level curriculum requires the equivalent of a two-hour discussion that focuses upon an

RCR case study. Generally, these discussion sessions are facilitated by the Graduate School.

With prior approval of the RCR Coordinator, the Practicum / Case-Based Component may be facilitated during in-class sessions of a graduate research-related course. To comply with this requirement, course directors/instructors must submit a course syllabus and relevant class materials for review and approval by the RCR Coordinator one semester prior to the course offering; these items will be reviewed regarding RCR content alignment with GRD 717.

Contact the RCR Coordinator or the Graduate School RCR Administrator/GRD-717 Instructor for a list of approved courses.

b. Timing and Renewal:

Masters plan I (MS-I) students engaged in research activities at UAB are required to complete RCR training described herein prior to admission to candidacy. Doctoral students who are required to earn a master's degree (plan I or II) as a part of their PhD program should complete the RCR requirement for doctoral students (GRD 717).

c. Institutional Documentation and Program Evaluation

Successful completion of each training component is documented via on-line CITI Program RCR module quizzes and class or workshop attendance by the Graduate School. Metrics to evaluate the success of the proposed M.S. students RCR training plan include:

- Percentage / number of MS-I students who successfully complete on-line and in-person training based on the overall number required.
- Feedback from course directors and/or research mentors regarding MS-I students' knowledge and practice of RCR in a research setting.

3. Ph.D. Students and Post-Docs

a. Curriculum

i. Foundational Self-Paced Component (online):

Required CITI Program® Course Entitled: "RCR Basic Course"

The "RCR Basic Course" includes the following modules:

- Authorship (RCR-Basic) (ID 16597)
- Collaborative Research (RCR-Basic) (ID 16598)
- Conflicts of Interest and Commitment (RCR-Basic) (ID 16599)

- Data Management (RCR-Basic) (ID 20896)
- Financial Responsibility (ID 16601)
- Mentoring and Healthy Research Environments (RCR-Basic) (ID 20983)
- Peer Review (RCR-Basic) (ID 16603)
- Plagiarism (RCR-Basic) (ID 15156)
- Research, Ethics, and Society (ID 15198)
- Research Involving Human Subjects (RCR-Basic) (ID 13566)
- Research Misconduct (RCR-Basic) (ID 16604)
- Using Animal Subjects in Research (RCR-Basic) (ID 13301)
- (For Engineering Students) Environmental and Social Dimensions of Engineering Research (ID 12835)

The Self-Paced Component requires successful completion of the CITI Program Course Entitled: “RCR Basic Course” measured by a quiz score of 80% or greater for each module.

ii. Practicum / Case-Based Component (in person):

Successful completion of GRD 717.

b. Timing and Renewal

All doctoral (PhD) graduate students engaged in mentored research activities at UAB are required to complete the RCR training curriculum described herein either in their first year of mentored research or prior to admission to candidacy (PhD) at UAB.

Re-completion of the Required CITI Program® Course is required at least once every four years from the date it is first completed.

c. Institutional Documentation and Program Evaluation

Successful completion of the Foundational Self-Paced Component is required prior to enrollment in GRD 717 and is evidenced by a certificate issued by CITI Program®. The Practicum/Case-Based Components is monitored via online quizzes and workshop attendance and documented on the student’s transcript as successfully completing GRD 717 which is required prior to candidacy. Metrics to evaluate the success of GRD 717 RCR training include:

- Percentage/number of graduate students and postdoctoral fellows who complete on-line and in- person training successfully based on overall number required.
- Number of graduate faculty who participate as facilitators of GRD-717.
- Feedback from trainees, faculty, and training program directors regarding trainees’ knowledge and practice of RCR in a research setting.

4. Faculty and Staff

a. Curriculum

i. Foundational Self-Paced Component (online):

Required CITI Program® Course Entitled: “RCR Basic Course for Faculty and Staff”

The “RCR Basic Course for Faculty and Staff” includes the following modules:

- Authorship (RCR-Basic) (ID 16597)
- Data Management (RCR-Basic) (ID 20896)
- Mentoring and Healthy Research Environments (RCR-Basic) (ID 20983)
- Peer Review (RCR-Basic) (ID 16603)
- Plagiarism (RCR-Basic) (ID 15156)
- Reproducibility of Research Results (ID 17756)

The Self-Paced Component requires successful completion of the CITI Program Course Entitled: “RCR Basic Course for Faculty and Staff” measured by a quiz score of 80% or greater for each module.

ii. Practicum / Case-Based Component (in person):

Faculty engaged in research activities are invited to participate in facilitating GRD-717 as course facilitators. Contact the Graduate School RCR Administrator/GRD-717 Instructor for more details.

Faculty and Staff researchers are also naturally expected to perpetually participate in and renew RCR concepts through professional practicum such as workshops, seminars, and professional certification trainings and to document such professional practicums with relevant professional certifications and other demonstrable evidence of completion. Such training is routinely available through formal and informal offerings from UAB offices as well as external professional societies and organizations. Faculty and Staff researchers should keep evidence of completion, including published descriptions about the RCR training and certificates, and list such documented and recent training on relevant C.V.s or other proposal documents.

UAB is currently developing a “learning management” strategy to acquire evidence of practicum and case-based training of the Faculty and Staff cohort. The Foundational/Self-Paced Component is monitored by the Research Integrity Officer and RCR Coordinator. While no administrative delays are currently in place for non-compliance, compliance protocol

and sponsored project proposal activity can be stalled pending completion of at least the Foundational/Self-Paced Component.

b. Timing and Renewal

For NSF sponsored programs, Faculty and Staff researchers must complete at least the Foundational Self-Paced Component through CITI prior to submitting a proposal or accepting an award. CITI Program® will alert Faculty and Staff researchers who have already completed the relevant module every 4 years to renew completion of the Foundational Self-Paced Component.

Faculty and Staff researchers must maintain structured records of individual involvement in Practicum and Case-Based programming which are subject to examination, upon request of the Research Integrity Officer or RCR Coordinator. Such requests for records examination will be initiated upon request by the federal Office of Research Integrity (ORI) or the National Institutes of Health Office of Extramural Research (OER).

c. Institutional Documentation and Program Evaluation

Successful completion of the required and elective online CITI Program® modules is documented directly via CITI Program® and captured in UAB's Research Administrative Systems for verification purposes.

The Office of Research is exploring commissioning of a "Committee on RCR Effectiveness" responsible for monitoring the RCR Requirements, considering acceptable curriculum through collaborative syllabus review, and establishing data-informed metrics on micro- and macro-pedagogical refinements to UAB's entire RCR programmatic enterprise.

D. Anticipated Companion Procedure Statements:

1. A separate procedure statement is anticipated governing the Pedagogical Expectations of both the Foundational Self-Paced and the Practicum/Case-Based Components. Notably, Pedagogical Expectations of GRD-717 and alternative RCR courses available to certain Masters-level researchers will be addressed in this anticipated procedure statement. Contemporary topics such as Open Science, Generative Artificial Intelligence Used in Scientific Communications, Machine Learning and Augmented A.I., will be addressed in the Pedagogical Expectations procedure statement.
2. A separate procedure statement is anticipated governing the formation of the "Committee on RCR Effectiveness" including but not limited to charge, membership, rotation, operations, objectives, and reporting.
3. A separate procedure statement is anticipated defining specifically those within each cohort who are considered "researchers" for purposes of application of the RCR Requirements.

4. A separate procedure statement is anticipated establishing UAB's program compliance monitoring, including strategies to ensure compliance.