# RCR Template for NIH Training Grant Applications

**Instructions:** Principal Investigators may use this template for addressing Responsible Conduct in Research (RCR) training requirements in NIH grant applications.

 “*NIH requires that all trainees, fellows, participants, and scholars receiving support through any NIH training, career development award (individual or institutional), research education grant, and dissertation research grant must receive instruction in responsible conduct of research. This policy will take effect with all new and renewal applications submitted on or after January 25, 2010, and for all continuation (Type 5) applications with deadlines on or after January 1, 2011.*

*This Notice applies to the following programs: 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. This policy also applies to any other NIH-funded programs supporting research training, career development, or research education that requires instruction in responsible conduct of research as stated in the relevant funding opportunity announcements.”*

Additional information is available at: [http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html.](http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html)

**Individual applications:** Applications must include a section that describes the instruction in the RCR that is appropriate to the career stage of the applicant (instruction for applicants in the early stages of their careers; participation as course directors, lecturers, or discussion leaders for applicants in middle or senior stages), as part of the Research Training Plan or Candidate Information and Career Development Plan. This section must document prior participation or instruction in RCR during the applicant’s current career stage (including the date instruction was last completed) and propose plans to either receive instruction in RCR or participate as a course lecturer, etc., depending on the applicant’s career stage.  Such plans must address the five instructional components outlined below. The plan may include career stage-appropriate, individualized instruction or independent scholarly activities that will enhance the applicant’s understanding of ethical issues related to their specific research activities and the societal impact of that research.  The role of the sponsor/mentor in the instruction in RCR must be described. Where applicable, renewal (Type 2) applications must, in addition, describe instruction in RCR activities undertaken during the past project period as well as future plans in order to meet the frequency requirement.

**Institutional applications:** New (Type 1) applications must include a plan for instruction in responsible conduct of research.  In addition to addressing the five instructional components that are listed in detail below, the plan must describe how participation in instruction in responsible conduct of research will be monitored. Renewal (Type 2) applications must, in addition, describe changes in formal instruction over the past project period and plans for the future that address any weaknesses in the current instruction in responsible conduct of research.  All training faculty who served as course directors, speakers, lecturers, and/or discussion leaders during the past project period must be named in the application.

**Please edit the template narrative as appropriate to address specific application requirements and to explain specifically how/when RCR training will be completed in your grant application for the proposed award period. Be sure to address the following five (5) areas at minimum:**

1. ***Format:*** *Describe the required format of instruction, i.e., face-to-face lectures, coursework, and/or real-time discussion groups. A plan with only on-line instruction is not acceptable.*
2. ***Subject matter:*** *Describe the breadth of subject matter, e.g., conflict of interest, authorship, data management, human subjects and animal use, laboratory safety, research misconduct, and research ethics.*
3. ***Faculty participation:*** *Describe the roles of mentor(s) and other faculty involvement in the instruction.*
4. ***Duration of instruction:*** *Describe the total number of contact hours of instruction*.
5. ***Frequency of instruction*:** *Instruction must occur during each career stage and at least once every four years. Document any prior instruction during the applicant's current career stage, including the inclusive dates instruction was last completed.*

**Template Narrative**

Duke University is committed to promoting and ensuring Responsible Conduct of Research (RCR) across all disciplines, and to providing researchers an environment to conduct preeminent research, maintain the public’s trust, and prepare current and future generations to contribute to research discoveries that will address and advance national and global needs. The University believes that both formal and informal RCR training is an essential component that should be tailored to an individual’s specialty, career stage, and other participant specific needs. Duke’s RCR curriculum for biomedical PhD students was designed to **exceed the NIH recommendations** put forth in NOT-OD-10-019, with 18 contact hours of formal instruction.

**Format:** The RCR curriculum for biomedical PhD students combines face-to-face lectures, interactive panels, case studies, large and small group discussions, and online modules. The curriculum includes a day-long in-person orientation retreat, 2 semester-long hybrid in-person/online courses, self-paced online modules, and ongoing RCR forum electives that provide specialized, smaller interactive opportunities across research disciplines for advanced graduate students.

**Subject Matter**: Duke’s RCR curriculum was developed to incorporate all NIH RCR and Rigor and Reproducibility (R&R) core competencies in a trainee-stage specific manner. The complete course syllabi are available on the OBGE RCR website. Briefly, BIOTRAIN750 covers conflict resolution, mentor/ mentee relationships, data acquisition/management, identifying implicit bias, and identifying/handling misconduct. BIOTRAIN751 covers mentor/mentee communication, experimental design/variables/statistics, data analysis/sharing/reporting, scientific misconduct, and research ethics. BIOTRAIN 754 covers professional collaborations, responsible authorship/publication/peer review, conflict resolution, policies for human/animal research, conflicts of interest, socially responsible science, and diversity and inclusion in science. RCR forum electives are different each year but are broadly categorized into academic integrity and misconduct (GS714), diversity and inclusion in a research environment (GS715), mentoring and wellness (GS716), and best practices in responsible scholarship (GS717).

**Faculty Participation:** Significant faculty participation is achieved by utilizing a rotating pool of faculty at a range of career stages to serve as course directors, discussion leaders, and instructors. Every course has at least one faculty panel discussion to showcase personal experience rather than simply relying on generic case studies. A list of faculty participants is included in [[APPENDIX XX]]. <include if appropriate for specific grant>

**Duration/Frequency of Instruction**: Duke’s curriculum is designed to ensure that RCR instruction occurs throughout the stages of each trainee’s career. BIOTRAIN750 is a day-long in person orientation retreat for incoming first year students that is counted as 4 contact hours. BIOTRAIN751 and BIOTRAIN754 are both semester-long hybrid in-person/online courses offered in the spring of the first/fourth years respectively. These courses meet weekly for 12 weeks and are counted as 4 contact hours each. BIOTRAIN753 consists of self-paced interactive online modules to be completed during years 2 and 3 that is counted as 2 contact hours. Finally, the GS71X series of RCR forum electives are completed in years 5 and beyond and count as 2 contact hours each (completion of 2 forums is required for graduation). In total this curriculum provides a total of **18 contact hours** of RCR instruction completed over the course of the graduate career. <Graduate students, insert dates of your training; example: “BIOTRAIN750 8/14/2020”

**Compliance and Assessment**: Completion of RCR curriculum is tracked by the registrar and is a requirement for graduation. Students complete course evaluations at the end of all courses to provide feedback and indirect assessment of learning objectives. Comments and suggestions about course format, content, relevance, and presentation are used to improve the course in future years. <Institutional grants add specifics about monitoring here.> Direct assessment of concept comprehension by advanced students in BIOTRAIN753/754 is measured using online quiz formats that require a minimum score of 80%. The RCR curriculum is overseen and evaluated annually by the RCR Curriculum Manager, Program Assessment Manager, OBGE Director, and Associate Dean for Research Training.