# Responsible Conduct of Research (RCR)

# Brown Ethics and Responsible Conduct of Research Education (BEARCORE)

# Spring 2019 Syllabus

## Course Description

The **B**rown **E**thics **A**nd **R**esponsible **C**onduct **O**f **R**esearch (BEARCORE) program is administered by the Office of the Vice President for Research and is offered to students and trainees from a variety of academic fields, biomedical and non-biomedical. It is designed to acquaint researchers and trainees with ethical issues that emerge in all disciplines, and to equip participants with knowledge and resources to conduct research responsibly and with the highest degree of excellence and integrity.

Successful completion of the BEARCORE training fulfills the National Institutes of Health's (NIH) and the National Science Foundation's (NSF) RCR requirements.

BEARCORE can be taken as a Full RCR course or a Refresher course. If you have not completed an RCR course within the past four years, you must take the Full RCR course.

## Course Contacts

Rebecca Haworth: Rebecca_Haworth@brown.edu Phone: 401-863-2041
Jules Blyth: Juliane_Blyth@brown.edu Phone: 401-863-3295

## Course Dates

| Core Sessions | Date | Time | Location |
|---|---|---|---|
| Core Session I | Thursday, Feb 28 | 11 am – 1 pm | Kasper Room, Stephen Robert '62 Campus Center |
| Core Session II | Thursday, March 7 | 11 am – 1 pm | Kasper Room, Stephen Robert '62 Campus Center |
| Core Session III | Monday, March 11 | 11 am – 1 pm | Barus & Holley, Room 190 |

| Elective Sessions | Date | Time | Location |
|---|---|---|---|
| Elective Session I | Thursday, March 14 | 11 am – 12 pm | Hecker Training Room, Rockefeller Library |
| Elective Session II | Thursday, March 14 | 12 pm – 1 pm | Digital Studio, Room 160, Rockefeller Library |
| Elective Session III | Monday, March 18 | 11 am – 12 pm | Digital Scholarship Lab, Rockefeller Library |
| Elective Session IV | Monday, March 18 | 12 pm – 1 pm | Digital Scholarship Lab, Rockefeller Library |
| Elective Session V | Thursday, March 21 | 12 pm – 1 pm | Digital Scholarship Lab, Rockefeller Library |

**Final Group Sessions**

The Final Group Session is a one-hour final case analysis session. The goal of this session is for participants to apply what they have learned during the course to real-life cases and scenarios that are presented to them for discussion.

Students must sign up for one of the following sessions. You can sign up when registering for the BEARCORE course. Sign-up sheets will also be available at the Core Sessions.

| Final Group Sessions | Date | Time | Location |
|---|---|---|---|
| Session A | Monday, March 25 | 12 pm – 1 pm | SciLi 720 |
| Session B | Thursday, March 28 | 12 pm – 1 pm | SciLi 720 |
| Session C | Monday, April 1 | 11 am – 12 pm | SciLi 720 |
| Session D | Thursday, April 4 | 12 pm – 1 pm | SciLi 520 |

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**Course Requirements**

**Full BEARCORE Course**:

In order to earn a Certificate of Completion, participants must

- Attend all three Core sessions, and
- Attend at least two one-hour Elective sessions, and
- Participate in the final group session.

Participants are also expected to engage in class discussions and complete any assigned coursework.

**BEARCORE Refresher Course:**

If you are enrolled in the BEARCORE refresher course, you must attend at least 4 hours of in-person teaching to receive the RCR Refresher certificate. You may, for example, attend two Core

sessions (2 hours each) OR choose four one-hour Elective sessions. You could also attend a combination of Core and Elective sessions.

**Required Readings/Assignments:** Relevant required readings or assignments will be given directly prior to each week's class.

# BEARCORE Course Descriptions

## CORE SESSIONS

**CORE Session I** **Thursday, February 28, 2019** **11 am – 1 pm**

Topic: *When it rains, it pours*

Graduate students learn about research norms and acceptable practices in their field by working closely with established researchers and academics, who provide training and mentoring in the responsible conduct of research. That is the theory. In practice, however, the level of training and mentoring that is provided varies from lab to lab; and it is not clear that the responsible conduct of research is taught with the same emphasis and rigor across disciplines.

Many real life cases of unethical conduct of research reveal a whole host of short-comings: from inadequate mentoring, insufficient oversight, and ad hoc or sloppy training, to pressure and intimidation, as well as deliberate teaching of questionable research practices. Moreover, Research Integrity Officers know all too well that when things go wrong, it is usually not one but many problems that surface, and the fall-out can be significant.

"When it rains, it pours" will use case studies to explore questionable research practices, research misconduct, and criteria for authorship.

We also discuss the avenues and mechanisms for asking questions and raising concerns, as well as look at applicable regulations, policies or guidelines you should be aware of.

Speaker(s)/Facilitators:

Jill Pipher, Ph.D., Vice President for Research, Elisha Benjamin Andrews Professor of Mathematics, Brown University

Stacey Springs, Ph.D., Research Integrity Officer, Harvard University

Keri Godin, Director, Office of Research Integrity, Brown University

Jules Blyth, Associate Director, Office of Research Integrity, Brown University

Location: Kasper Room, Stephen Robert ’62 Campus Center

**CORE Session II Thursday, March 7, 2019 11 am – 1 pm**

Topic: *Fostering the Mentor-Mentee Relationship*

This session will be facilitated by faculty trained by NRMN and will use a case-based approach to explore an intellectual framework for research mentoring, providing opportunities for reflection on mentoring skills and the mentor-mentee relationship, and an interactive forum to solve mentoring dilemmas and share strategies for success.

Speaker(s)/Facilitators:

Diane Hoffman-Kim, Ph.D., Associate Professor of Medical Science, Associate Professor of Engineering, Brown University

Ulrike Mende, M.D., Professor of Medicine, Brown University

Location: Kasper Room, Stephen Robert ’62 Campus Center

**CORE Session III Monday, March 11, 2019 11 am – 1 pm**

Topic: *Data Stewardship – everything you need to know about data, small and big: from data management to data ownership, from data sharing to data protection.*

What are funders, publishers, and Brown's expectations for managing your research data? What are data use agreements and what are our responsibilities when working with outside data sets? Who owns the data and what kind of data can we share and with whom? What kind of data requires special protection and handling?

Learn about public access polices, adopted by the major federal research funding agencies, for sharing publicly-funded research data with the public. These policies require that researchers develop data management and sharing plans for inclusion along with grant proposals outlining how data will be stored, backed up, secured, documented, disseminated and preserved. Furthermore, an increasing number of scientific journals are now requiring data be archived and made available for supporting published findings.

This session will also review data retention and stewardship expectations for research data at Brown and local tools for managing, preserving, and sharing research data. In addition to research data, several funders have created several new portals for publicly sharing publications as well. You will learn about tools

and resources at Brown to help you with recognizing warning signs of a predatory publisher and selecting reputable journals for publishing your research.

Speaker(s)/Facilitators:

Neil Sarkar, Ph.D., Director of the Center for Biomedical Informatics, Associate Professor of Medical Science, Associate Professor of Health Services, Policy and Practice

Andrew Creamer, Scientific Data Management Specialist, University Library

Location: Barus & Holley, Room 190

# ELECTIVE SESSIONS

**Elective Session I Thursday, March 14, 2019 11 am – 12 pm**

Topic: *Intellectual Property/Commercialization in Academia*

How does intellectual property (IP), created in an academic research environment, moves from discovery to market? What role does the university play in the commercialization process? Who owns the IP and who pays for the patent costs? What is the difference between a patent, copyright, and authorship? Who can be an inventor on IP?

These and many other questions will be answered in this session by our experts from Brown's Industry Engagement and Commercial Venturing Office (IECV) and faculty with commercialization experience.

This session will also look at proprietary information. Unlike companies, which are fiercely protective of their research results and data, academia has always fostered a culture of collaboration and sharing. However, an increase in collaborations with industry has introduced proprietary information into the academic research enterprise. Attendees will learn what researchers should know when working with such information.

Course Instructor(s)/Speaker(s):

Brian Demers, Director of Business Development, Office of Industry Engagement & Commercial Venturing

Leonard Katzman, Esq., Director of Business Development, Office of Industry Engagement & Commercial Venturing

Location: Digital Scholarship Lab, the Rockefeller Library

**Elective Session II Thursday, March 14, 2019 12 pm – 1 pm**

Topic: *Conflict Resolution in Mentor/Mentee Relationships*

A strong mentor-mentee relationship is key to a positive and successful learning experience. When conflicts arise between mentors and mentees, they can affect an entire lab or research team. Addressing and resolving a conflict as soon as it arises is essential to maintaining a strong mentor-mentee relationship. While many people try to avoid conflict at all costs, dealing with an issue between a mentor and mentee can sometimes help to strengthen and solidify the relationship if the issue is rectified in a positive manner. This interactive session explores methods and processes for resolving conflicts between mentors and mentees. It also discusses what resources are available at Brown to facilitate conflict resolution.

Course Instructor(s)/Facilitators:

Ruth Kohorn Rosenberg, J.D., Brown University Ombudsperson

Location: Digital Studio, "Seminar Room" 160 , Rockefeller Library

**Elective Session III** **Monday, March 18, 2019** **11 am – 12 pm**

Topic: *Ethical Considerations in Human Subjects Research*

This session will offer an overview of the responsible conduct of research as it pertains to human subjects research, whether biomedical or social/behavioral/educational. The presenters will provide an overview of the historical and ethical framework that form the basis of the human subjects research regulations that we follow today. Case studies will be presented to encourage discussion.

Course Instructor(s)/Facilitators:

Stephen McGarvey, Ph.D., MPH, Professor of Epidemiology, Professor of Anthropology, Director of the International Health Institute

Keri Godin, Director, Office of Research Integrity, Brown University

Location: Digital Scholarship Lab, the Rockefeller Library

**Elective Session IV** **Monday, March 18, 2019** **12 pm – 1 pm**

Topic: *Ethical Considerations in Animal Research*

The scientific community largely views research with animal subjects as a scientific necessity to find cures and treatments that will benefit society. However, the use of animals in research is fraught with emotion and considered unethical by some, and anti-research organizations are focused on ending this practice. This session will explore responsible conduct of research as it applies to the use of animals in research. What is the regulatory framework that governs their use? What are a researcher's ethical obligations when working with animals? This sessions will discuss the historical and ethical framework that forms the basis of today's animal research regulations and use realistic scenarios to walk through ethical decision-making as it pertains to using animals in research.

Course Instructor(s)/Facilitators:

Lara Helwig, D.V.M., DACLAM, Director of Animal Care and Attending Veterinarian, Brown University

Eugene Matullo, Assistant Director Animal Research Protection Program, Brown University

Location: Digital Scholarship Lab, the Rockefeller Library

**Elective Session V** **Thursday, March 21, 2019** **12 pm – 1 pm**

Topic: *Grants Management & Fiscal Responsibility*

Most scientists will, in the course of their career, receive sponsored research support, whether it is through a federal grant, a work order, an industry contract or a gift. Unfortunately, most scientists never receive any training on how to manage a grant responsibly. What are the rights and responsibilities under certain funding mechanisms? What is the life cycle of a sponsored award and what is expected of the Principal Investigator (PI) at each stage of the award?

This session will explore the various sponsored research mechanisms and discuss funders' expectations and PI responsibilities.

Course Instructor(s)/Facilitators:

Patrice Carroll, Director, Office of Sponsored Projects

Katherine Fleck, Associate Director, Office of Sponsored Projects

Location: Digital Scholarship Lab, the Rockefeller Library