RESPONSIBLE CONDUCT OF RESEARCH (RCR) OVERVIEW
The Office of Research Integrity (ORI) describes education and training in responsible conduct of research (RCR) in terms of nine instructional areas:

1. Data Acquisition, Management, Sharing & Ownership
2. Conflicts of Interest and Commitment
3. Human Subjects
4. Animal Welfare
5. Research Misconduct
6. Publication Practices and Responsible Authorship
7. Mentor / Trainee Responsibilities
8. Peer Review
9. Collaborative Science
Data Acquisition, Management, Sharing & Ownership

Things to consider:

- Replicability
- Corrupting Influences
- Good Research Practices
- Scientific Rigor and Scientific Integrity
- Pathological Science
- Image Manipulation
Types of Conflicts of Interest - Examples

Financial
- a researcher with stock options in a pharmaceutical company conducting studies on that company’s drugs

Commitment and Duty
- consulting relationships with other organizations, use of institutional resources for outside affiliations, allocation of time and attendance, respect of confidentiality

Personal / Individual
- signature authority for goods and services solicited by businesses owned by family or relatives, reviewing and recommending applications for hire from friends and neighbors, legislators receiving large gifts or honoraria from lobbyists

Institutional
- university officials own stock in a company that sponsors research on campus and provides large endowments
Human Subject Research

- Governed by the Institutional Review Board (IRB)

- A living individual about whom an investigator (professional or student) conducting research obtains data:
  1) through intervention or interaction, or
  2) identifiable private information

For more information on Human Subjects research regulations see 45 CFR part 46:
Animal Welfare

- Governed by the Institutional Animal Care and Use Committee (IACUC)
- Review animal care program
- Review animal facilities
- Review and approve protocols
- Investigate public concerns
- Suspend inappropriate/non-compliant activity involving animals

For more information on the Animal Welfare Act see: https://www.nal.usda.gov/awic/animal-welfare-act
Research Misconduct means:

fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.

For more information on research misconduct regulations 42 CFR 93.103 see:

https://ori.hhs.gov/FR_Doc_05-9643
Key areas:

- Fabrication is making up data or results and recording or reporting them.
- Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
- Determining Authorship?
The main purpose of the relationship between faculty and students is to prepare trainees to become successful researchers:

- Sets an ethical course for students to follow
- Commits to maintaining a productive and supportive research environment
- Has a clear understanding of mutual responsibilities
- Provides proper supervision and review
- Multiple mentors can be beneficial
Peer Review

Principles and standards of conduct to be observed when reviewing the work of colleagues:

- Confidentiality
- Respect for Intellectual Property
- Conflicts of Interest Management
- Punctuality
- Professionalism
Collaborative Science

Relationship between Science and Industry, Academia, Government, and Society:

- What research is to be funded and not funded
- What research questions are deemed important
- Restrictions on how research is practiced in the lab
- The behavior of the researchers
How does this all relate to SFASU?

- Responsible Conduct of Research training is required by federal awarding agencies for funded research projects.
- Training requirements vary depending on the sponsoring agency.
- All require that the institution doing the research must have a training plan in place and documentation of each research participates completion of that training on file.
- RCR training is valid for three years upon completion.
- SFASU subscribes to CITI for such compliance training. CITI is a trusted accredited training source providing sessions on a variety of relevant topics.