Responsible Conduct of Research Training for Science Professionals

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Professional Preparation

- Graduate coursework in science and engineering may include interdisciplinary education in:
 - business management,
 - communications,
 - regulatory affairs,
 - Intellectual property/commercialization,
 - ethics and
 - law.

(Teitelbaum & Lynch, 2010; Council of Graduate Schools, 2011).

Responsible and Ethical Conduct of Research (RCR)

Section 7009 - America COMPETES Act

"The responsible and ethical conduct of research (RCR) is critical for excellence, as well as public trust, in science and engineering. Consequently, education in RCR is considered essential in the preparation of future scientists and engineers."

Responsible & Ethical Conduct of Research

How do RCR topics such as:

- research misconduct
- conflict of interest
- publication
- collaboration
- social responsibility

present in the professional environment in which a science professional may be employed?

Conventions, Norms & Standards

	Academy	Business
Goals	Teaching, Research, Service	Produce goods, services - profit
Openness/Comm unication	Free exchange Academic Freedom	Protect proprietary interests/ Non- disclosure
Obligation	Students, Faculty, Staff, Sponsors Society	Stockholders, Consumers, Society

Shamoo and Resnik, 2009

RCR for Science Professionals

The model is designed to facilitate learning about industry-relevant research ethics by engaging a student, faculty and industry employers in learning teams to consider RCR topics. Instructional strategies include:

- Self-Study review of on-line materials
- Guided Conversation compare/contrast
- Case Based Reasoning problem solving
- Reflective Writing mid-point journal
- Collaborative Learning dialogue and case building



Objectives



- understand importance of RCR within the context of a profession;
- develop awareness of the ethical dimensions of research or practice within the profession;
- develop/refine skills to question, analyze and recommend ethical action;
- improve knowledge of relevant legal, institutional and professional resources and standards; and,
- foster research integrity in the workplace as science professionals within commercial, nonprofit and/or government employment sectors.

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