This 10-week workshop series will explore the scientist and where she interacts with society. In this course, students will examine issues arising from conducting research in areas of STEM, including those of privacy, health and safety, the environment, public perception and human enhancement. They will become aware of their responsibilities and role for conducting research with integrity and learning tools that they will be able to apply during their professional careers.

Contact Information: Bill Gannon, wgannon@unm.edu, 505-249-7906, Office Hour: Monday, Wednesday 1-2; by appointment. Office suite B69A, Graduate Studies Collaborative (The Den), University Advisement & Support Service Bldg 85 (east of Mesa Vista, south of Kiva). Call me anytime, but also before coming to The Den so I can look for you.

Course Description
Responsible Conduct of Research (RCR) is the practice of scientific investigation with integrity. It involves awareness and application of established professional norms and ethical principles in performance of all activities related to scientific research. It also includes most of the professional research activities that are coming under increasing regulatory scrutiny.

As of 4 January 2010 for NSF and 26 January 2010 for NIH, any researcher supported by NIH or NSF should be concerned about RCR requirements. Post-docs, graduate students, and undergraduate students supported by funding must receive RCR instruction within 1 year of the award. Including NSF and NIH, funding agencies have different requirements, but UNM has set certification good for 4 years before a refresher course is taken. More detailed information on the UNM standards (Scientific Integrity Plan; SIP) can be found at http://grad.unm.edu/AIRE .

Course Requirements and Policies
1) Email and Internet Access
I will post class announcements, course materials, and presentations on DropBox (http://www.dropbox.com/). Therefore, you must have reliable and regular access to the internet and do not need a UNM username and password. I will provide instructions on accessing drop box the first class period.

2a) Required Texts
- On Being a Scientist (free PDF at http://www.nap.edu/catalog.php?record_id=12192 )
- Frankenstein by Mary Shelley (the original 1818 text edited by DL MacDonald and K Scherf (ISBN 1-55111-308-2) or any other original version, in any media

Suggested Text (good background – NEW 4th edition on Scientific Integrity):

2b) Handouts provided – many current examples of RCR content from literature will be provided in Drop Box.

3) UNM’s Withdrawal Policy for semester-long courses:
   - The last day to drop any short/late start course is detailed on Bursar’s website, http://www.unm.edu/~bursar/tuitionfeesfall.html
   - If you withdraw from the course please be aware of the rules regarding WP or WF and the deadlines that are involved

4) Instructor Withdrawal Policy:
   I will enforce the following instructor withdrawal policy for this course:
   If a student has not shown up to class after the first 2 sessions, he/she will be dropped from the course.
   If a student has not attended at least 4 of the 6 sessions they will not receive RCR certification.
   However, the student may opt to supplement RCR instruction through other sources up to 1-year after this course has completed to still earn a certification in RCR. Please consult with the instructor if this is the case.

5) Appropriate Classroom Behavior (mostly for in-class; online behavior is easier to handle!)
   Syllabi Blurb (from Graduate Studies http://grad.unm.edu/current-students/academic-integrity.html)
   Academic Integrity. Academic integrity encompasses the core values and basic principles of honesty and responsibility that govern our practices as scholars, researchers, and creative artists in the university. Unfortunately, incidents of academic dishonesty, especially plagiarism, have been increasing throughout colleges and universities in the United States. Plagiarism is the act, intentional or unintentional, of using other people’s words or ideas as your own. This trend in part results from the ready availability of papers and resources on the Internet. The university, college, department, and I expect you to write your own papers and to provide full and accurate citations for any specific ideas or language—words, phrases, sentences—that you take from outside sources, including the Internet. Refer to the UNM Pathfinder and the UNM Catalog for the university’s policy on Academic Dishonesty. Following the guidelines of UNM policy, any act of academic dishonesty in this class will be reported to the department and to the Dean of Student’s office and may result receiving an F on the assignment, dismissal from class with a final grade of F, and even suspension or expulsion from the university, depending upon the severity of the violation.

Academic Dishonesty and Plagiarism Policy. Academic dishonesty includes cheating, fabricating or falsifying information or sources, improper collaboration, submitting the same paper for different classes without permission, and plagiarism. Plagiarism occurs when writers deliberately or unintentionally use another person’s language, ideas, or materials and present them as their own without properly acknowledging and citing the source. Familiarize yourself with UNM’s Student Code of Conduct and UNM’s policies on academic dishonesty.

Plagiarism. Plagiarism is taking credit for someone else’s work whether deliberately or unintentionally. This includes but is not limited to turning in all or part of an essay written by someone other than
yourself (a friend, an Internet source, etc.) and claiming it as your own, and including information or ideas from research material without citing the source. The University of New Mexico considers plagiarism a serious form of academic dishonesty. Avoid plagiarism by carefully and correctly citing your sources whenever you use someone else’s words, equations, graphics, or ideas. If you are unsure of something and are worried you may be plagiarizing, come see me, or go to CAPS. Plagiarism in this course results in one or more of the following consequences: failure of the assignment, failure of the course, and/or disciplinary action by the University. Cite sources carefully, completely, and meticulously; when in doubt, cite. Consult the Pathfinder for UNM’s Student Code of Conduct and the Dean of Student’s Academic Integrity/Honesty for more information. Students encouraged to use antiplagiarism software such as iThenticate (http://ithenticate.unm.edu/) to check all papers, grants, manuscripts for unintentional plagiarism.

Please be aware of the following rules of behavior for this class:
- Cell phones must be turned off / put away during class. In other words, phone calls and text-messaging discouraged – pay attention.
- Please be respectful; if you arrive late enter the room quietly to prevent disruptions.

6) Grading Policy
This class is “pass with certification” in the Responsible Conduct of Research or “not pass.” This will result in either an “A” or withdraw. Withdraws will be either “WF” or “WP” depending on your attendance. You must attend each session and participate in order to pass. A sign in sheet will be distributed each session to document attendance. Let me know if there are any issues that you might have affecting this policy. A number of low-stress assignments must be completed for final grade.

7) Daily Schedule

The schedule of topics we will cover may vary. Regularly check Research Ethics Drop Box for new materials. Assignments can be emailed to wgannon@unm.edu and/or placed in student folder on Drop Box.

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<td>Date</td>
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<td>22 September 2015</td>
<td>Ethical tensions in conducting clinical research: Prisoners, mentally ill, and substance abusing populations. “Impression” Paper due in 1 week.</td>
<td>4 – 5: 20 PM Tuesday</td>
<td>Barbara McCrady</td>
<td>Mechanical Engineering 214</td>
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<td>29 September 2015</td>
<td>Engineer Ethics: The role of the researcher: What do the engineering codes of ethics tell us about research? “Impression” Paper due in 1 week.</td>
<td>4 – 5: 20 PM Tuesday</td>
<td>Chuck Fledderman</td>
<td>Mechanical Engineering 214</td>
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“Impression” Paper due in 1 week. | 4 – 5:20 PM Tuesday | Kevin Comerford  | Mechanical Engineering 214 |
| 13 October 2015 | An International Standard for Social Responsibility?! ISO 26000 as a model for framing the research lifecycle in terms that relate to sustainable development. Examples of Facebook, Science Retraction, and funding agencies requirement.  
“Impression” Paper due in 1 week. | 4 – 5:20 PM Tuesday | Karl Benedict kbene@unm.edu - (505) 277-5256 | Mechanical Engineering 214 |
| 20 October 2015 | Research ethics and business practice: Do they ever listen?  
“Impression” Paper due in 1 week. | 4 – 5:20 PM Tuesday | Shawn Berman | Mechanical Engineering 214 |
| 27 October 2015 | Presentations and wrap up | 4 – 5:20 PM Tuesday | Participants | Mechanical Engineering 214 |

Assignments and Your Expected Effort:
1 - We expect participants to participate – that is there is ample time for discussion and analysis of content topics. Please speak up if you have something to share. Also, I am looking for a 1-page impression paper that summarizing the main issue that you heard discussed and your comments about that. Typically, this paper is dominated by 3 paragraphs: 1 – summarize the reading or issue, 2 – what are the ethical issues that you see defined, and 3 – provide your opinion of the best outcome.

2 - Frankenstein: Details on the reading of Frankenstein (condensed version) and discussion of it will be provided during class. Also, details on presentations will be provided on separate handout on first day of class.

3 – A short presentation (could be a poster, powerpoint, a play, a song, whatever) of ethical issues relevant to your graduate/research work. I am looking for something creative that gets audience members to think. What would be the best outcome? What is the likely outcome? Why is there a difference? Limit 5 mins (300 seconds).

4 – If you miss class or need additional background you may complete The Lab, AALAS, or CITI modules. I will give more guidance on this in class.