Course Description and Goals
The goal of this 1 credit course is to introduce beginning graduate students to the key topics related to the responsible scholarship in the chemical sciences. The key component of the course is your active involvement in discussions of hypothetical scenarios and historical cases that will require students to describe how the principles of the responsible scholarship should be applied and/or how these principles should have been applied to prevent the documented failures.

Grading
Attendance and participation are mandatory. You will be graded on a 200-point scale, with final grades being determined from the total % accumulated (A = 90%; B = 80%; C = 70%; D = 60%; F <60%; no +/–).

Attendance: 8 weeks x 5 points/week = 40 points
Scenario Discussion Leadership = 30 points
Scenario Discussion Report = 30 points
Term Paper = 100 points
TOTAL POINTS = 200 points

Lectures and Discussions:
The lectures will be held on Fridays in 1003 Malott 1:30–3:20 pm. A short lecture (~40 minutes) will be followed by a group discussion of a "scenario" (25–30 minutes) and the class will conclude with a brief “summary of the discussion”. The discussion will be lead and the summary will be presented by a group of 2–3 students, who will also collaborate on writing a report on the outcome of the Scenario Discussion. Make sure to sign up for the discussion leader role (once per semester) during the first week of classes! Attendance and active participation is required, will be monitored and constitute a part of your grade.

Textbooks and Reading Material:
Two required texts are available to download for free:

[National Academy of Sciences (NAS) in Class Schedule]


For assigned reading from these texts see the Class Schedule.
Blackboard:
Important announcements, information and additional Assigned Reading will be available on the course web-site in Blackboard at http://courseware.ku.edu. For help with accessing the course site contact the ACS Help Center at 864-0200 or call IDS at 864-2600.

Academic Honesty:
You are encouraged to discuss all assignments with your classmates, however, what you submit for grading must be entirely your own work unless when instructed to work in pairs. Anything you write must be in your own words. Copying, paraphrasing, and “borrowing” ideas are all forms of plagiarism and will not be tolerated. All incidents of academic misconduct (including, but not limited to, plagiarism and tampering with the weekly attendance sheet) will be reported to the Department Chair and students found in violation will fail the course. Electronic software for detection of plagiarism may be used with or without notice. Copies of all written reports will be stored in a database for future reference.

Assignments:
1. Read the assigned reading, as listed in the Class Schedule and also additional materials posted in Blackboard before the lecture.

2. One time a semester take up the role of Discussion Moderator. Your goal will be to become familiar with the “Scenario” that will be discussed next lecture (will be posted in Blackboard), consider what questions you would want to ask your fellow students (and postdocs and faculty who might be attending) with the goal to explore all possible avenues of how the principles of responsible scholarship should be applied by all the characters involved in the “scenario.”

   If you wish to modify or expand the scope or nature of the described scenario to explore a related situation that you see relevant, you are strongly encouraged to outline such additional extensions of the posted “Scenario” at the onset of the class discussion. Feel free to consult with the course instructor before the lecture time about ideas for questions and directions where to lead the “Scenario Discussion”. During the discussion time, your role will be to encourage and direct the discussion so that all your fellow students take the opportunity to express their views. Next, you will present a short “chalk-talk” presentation summarizing the points raised and conclusions reached.

   The group of discussion leaders will collaborate on writing a “Scenario Discussion Report”. The report should be a 2–3 page paper, outlining: (i) the background information, codes of conduct and policies relevant to the presented scenario; (ii) summary of the issues, ideas and questions brought up during the discussion; (iii) and the conclusion of the discussion suggesting how all the characters in the “Scenario” should resolve the situation by following the Responsible Research Conduct principles.

Term Paper
You will write a paper, due on October 28, 2013 by 5 pm. The paper should describe one case of a scientific misconduct that occurred in a field of chemical sciences of your choice. If possible, it should be a case DIFFERENT from those presented in the class. Your paper should include the following: (i) detailed history of the case-what happened (be specific), how it was uncovered and what is the current fate of those responsible; (ii) discussion of what factors motivated/encouraged or enabled the violation of the Responsible Research Conduct principles; (iii) outline of how such situation could have been prevented or stopped in a very early stage by proper application of the Responsible Research Conduct principles.
## Course Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Topic</th>
<th>Potential Scenario Discussion</th>
<th>Discussion Leaders</th>
<th>Assigned Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 30</td>
<td>Introduction</td>
<td>N/A</td>
<td>N/A</td>
<td>NAS: 1–3 ORI: Chp 1</td>
</tr>
<tr>
<td>September 6</td>
<td>Research Misconduct</td>
<td>“Changing the Procedure”</td>
<td></td>
<td>NAS: 15–21 ORI: Chp 2</td>
</tr>
<tr>
<td>September 13</td>
<td>Data Management and Record Keeping</td>
<td>“The “typical data set” – a lie or a “way of speaking”?</td>
<td></td>
<td>NAS: 8–14 ORI: Chp 6</td>
</tr>
<tr>
<td>September 20</td>
<td>Responsible Authorship Responsibilities of Editors, Reviewers</td>
<td>“Timely publication”</td>
<td></td>
<td>NAS: 29–42 ORI: Chp 9 and 10</td>
</tr>
<tr>
<td>September 27</td>
<td>Directing research, Grant administration Conflict of Interest</td>
<td>“The endless dissertation”</td>
<td></td>
<td>NAS: 4–5, 43–47 ORI Chp 5, 7 and 8</td>
</tr>
<tr>
<td>October 4</td>
<td>Laboratory Safety Human Participants and Animal Subjects in Research</td>
<td>TBA – animal subjects and/or lab safety and environmental issues – related “Disappearing bottles”</td>
<td></td>
<td>NAS: 24–28 ORI Chp 3 and 4</td>
</tr>
<tr>
<td>October 11</td>
<td>Case Studies in Synthetic chemistry</td>
<td>Group discussion of the presented cases</td>
<td></td>
<td>Current literature, TBA</td>
</tr>
<tr>
<td>October 15</td>
<td></td>
<td>Fall Break</td>
<td></td>
<td></td>
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<tr>
<td>October 18</td>
<td></td>
<td>ACS MWRM</td>
<td>No class</td>
<td></td>
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<tr>
<td>October 25</td>
<td>Case Studies in Analytical and Theoretical Chemistry</td>
<td>Group discussion of the presented cases</td>
<td></td>
<td>Current literature, TBA</td>
</tr>
</tbody>
</table>