Institutionalizing Research Ethics and Scholarly Integrity: Model Programs

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Duke University
RCR - a degree requirement at Duke

- Since Fall 2003, RCR is a formal degree requirement for every Ph.D. student as mandated by the Executive Committee of the Graduate Faculty

- Structure of RCR training:
  - Mandatory RCR Orientation - Graduate School
  - RCR Forums – Graduate School & Dept/Program
  - Courses/workshops pre-approved by Dean – Dept/Program
RCR Training at Duke - 3 Tracks

**Basic Medical Science Track**

- 18 credit hours
- Orientation 12 hours
- Forums 6 hours

**Natural Science and Engineering Track**

- 12 credit hours
- Orientation 6 hours
- Forums 6 hours

**Humanities and Social Science Track**

- 12 credit hours
- Orientation 6 hours
- Forums 6 hours
RCR Orientation – Basic Medical Science Track

- Mandatory
- All Basic Science Students (17 depts, ~120 new students)
- Held at Duke Marine lab (Beaufort, NC)
- Serves as RCR & Orientation to Basic Medical Science programs
Schedule Basic Medical Science Track-GS310B:
Responsible Conduct of Research- Marine Lab

Friday - August 21:
10:30 – 11:30 am Load buses
5:30 pm Dinner
6:30 pm Welcome – Course organizers
6:40 pm Introduction to the Marine Lab
6:55 pm “Let’s Get Ethical”
7:20 pm Why Do We Bother with Research Ethics Training?
8:00 pm Breakout Sessions – Case Study #1
9:00 pm Boathouse Special

Saturday - August 22
8:45 am Allocation of Credit and Authorship
9:15 am Image Manipulation: Avoiding Misconduct
9:45 am Coffee Break
10:00 am Handling of misconduct Allegations at Duke –
10:30 am Breakout Session – Case Study #2
12:00 pm Shackleford Island Trip
4:00 pm Snacks Served in the Dining Hall
5:00 pm Movie
6:30 pm Breakout Session
7:00 pm Barbeque Dinner

Sunday - August 23:
7:30 am Breakfast
8:30 am Ethical Research on Animals –
9:10 am Professional Obligations of a Scientist
9:45 am Breakout Session – Case Study #3
11:00 am Course Evaluations
11:50 am Pick up boxed lunches and load buses
12:00 pm Depart for Durham
RCR Orientation – On Campus

- 2 Sessions
  - Humanities & Social Sciences (17 depts. ~140 new students)
  - Natural Science & Engineering (18 depts. ~240 new students)

- Mandatory
  - 9 am-5 pm week of Orientation (pre-class start)
RCR Orientation Schedule – on campus

Friday, August 21, 2009

8:30-9:25  Registration & Continental Breakfast
9:30-10:00  Plenary 1: Welcome & Introduction to RCR
10:00-10:30  Plenary 2: “Responsible Conduct in Research: A global concern”
10:30-11:15  Faculty Panel
11:30-12:30  Departmental Breakouts & Case Studies
12:30-1:30  Lunch

1:30-2:10  Session #1: Resources at Duke
   (1-A) Promoting Academic Integrity in Teaching
   (1-B) Responsible Research in the Digital Age
   (1-C) TA Survival Skills and Instructional Technology

2:15-2:55  Session #2: Resources at Duke
   (2-A) Promoting Academic Integrity in Teaching
   (2-B) Responsible Research in the Digital Age
   (2-C) How to Survive (and Thrive) with Faculty Mentors

Session #3: Resources at Duke
   (3-A) How to Survive (and Thrive) with Faculty Mentors
   (3-B) Institutional Review Board – Tips for Human Subjects Research
   (3-C) Building a Respectful and Inclusive Environment at Duke

4:00-4:30  Plenary 3: “Preventive Ethics”
4:30-5:00  Closing Remarks
Communication to Students - Web & Email

RESPONSIBLE CONDUCT OF RESEARCH (PH.D. REQUIREMENT)

Duke University Graduate School strives to promote responsible research and academic integrity by:

- engaging in strategic planning on RCR education
- providing training on RCR topics
- developing RCR educational resources
- evaluating RCR educational programs, and
- presenting key findings to the scholarly community.

RCR training is a formal requirement of the Ph.D. degree in every department and program of study at Duke. This reflects our expectation that every doctoral candidate will be well qualified to address the growing ethical challenges that arise when teaching or conducting research. We collaborate with faculty and staff across Duke University and Duke University Medical Center, with experts from nearby institutions in the Research Triangle, and with national and federal organizations including the Council of Graduate Schools and the U.S. Office of Research Integrity.

Since the 1990s, Duke Graduate School has been at the forefront of the development of RCR training, and we have expanded RCR training to every Ph.D. student to ensure that all graduate students who receive funding by federal agencies (NIH, NSF, etc.) are in compliance with federal guidelines and mandates for such training. The Graduate School's RCR program has developed from a modest orientation for certain biological science fields to our current structure of face-to-face training offered via three RCR Orientations (by academic discipline groups), two-hour RCR Forum workshops, and department-specific training. A summary of our RCR program, designed for Duke faculty to incorporate into NIH or NSF research grant proposals, can be found here:

NIH Grants - RCR Summary (pdf)
RCR Forums – On going training

- “Ethics of Pain Management in Animal Care & Use”
- “Environmental Justice and Responsible Research”
- “Improving data integrity and patient safety in clinical research: lessons from the Human Simulation & Patient Safety Center”
- “Copyright and Fair Use in Research and Teaching”
- “Great Expectations of Research Advisers and Mentors”
- “From Publication to Publicity: Ethical Issues in Interactions between Scientists and the Media”
- “Ethical Challenges in Non-Medical Research with Human Subjects: Informed Consent”
- “Access to Scholarly Materials: Ethical Dilemmas in Research”
- “What’s in a Picture? The temptation of image manipulation”
Assessment & Feedback

Focus groups

- RCR must address realities of graduate student experience
- Faculty leadership is vital;
  - advanced graduate students are helpful
- Use of outside speakers help student realize: “it’s not just a Duke issue”
- Human/animal topics optional; apply to “some students”
- Value the social dimension (talk with faculty; meet peers)
- Off-campus setting = “a marked advantage”
- Pre-readings/cases help hold ideas together all weekend
## RCR Exit Survey

<table>
<thead>
<tr>
<th>RCR Topic</th>
<th>General Knowledge</th>
<th>Level of Confidence</th>
</tr>
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<tbody>
<tr>
<td>Academic integrity</td>
<td>4.14</td>
<td>3.69</td>
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<tr>
<td>Authorship and publication practices</td>
<td>4.00</td>
<td>3.54</td>
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<tr>
<td>Data management</td>
<td>3.85</td>
<td>3.69</td>
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<tr>
<td>Peer review</td>
<td>3.79</td>
<td>3.62</td>
</tr>
<tr>
<td>Misconduct (identifying and reporting)</td>
<td>3.36</td>
<td>3.31</td>
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<tr>
<td>Mentor/Advisee responsibilities</td>
<td>3.36</td>
<td>3.38</td>
</tr>
<tr>
<td>Care and use of animals</td>
<td>3.36</td>
<td>3.15</td>
</tr>
<tr>
<td>Intellectual property</td>
<td>3.36</td>
<td>3.31</td>
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<tr>
<td>Research with human subjects</td>
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<tr>
<td>Conflict of interest or commitment</td>
<td>3.23</td>
<td>3.15</td>
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<tr>
<td>Social impact of research</td>
<td>3.07</td>
<td>3.16</td>
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<tr>
<td>Harassment prevention and handling complaints</td>
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<td>3.08</td>
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<tr>
<td>Collaborative research</td>
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<tr>
<td>Fiscal responsibilities</td>
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<td>2.62</td>
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RCR Training at Duke- Challenges

- Resources
  - $$
  - Faculty - ~35 faculty, 15 TAs, 10 staff participate in Orientation
  - Staff time
- Faculty are volunteers and not ‘experts’
- Encouraging Department/Pgm/School specific forums
- Limited training resources (esp. Humanities).
- Not (currently) required for master’s students – problems
- Discipline specific trainings- especially challenging in the humanities
Thanks

- Senior Associate Dean David Bell
- Assistant Dean Doug James
- Staff assistant Kris Moyle
- CGS ORI Project for Scholarly Integrity support