

## Homework 1. Due by 11:59pm on Sunday 8/28.

### What is responsible conduct in research and scholarship (RCRS)? Why are we discussing it?

Read pages 1–3 of *On Being a Scientist*, which is freely available from a link on the course web page, <https://ionides.github.io/810f22/>. Edit the tex file, available at <https://ionides.github.io/810f22/hw01.tex>, to include the requested answers and your name. Run L<sup>A</sup>T<sub>E</sub>X on this file, and submit the resulting pdf file via Canvas.

**You should not have to think long or hard about each question. It is acceptable to write down the first relevant thoughts that come to mind after reading the material. These thoughts will be the starting point for the class discussion. Your answer may be read out as part of the class discussion. Please write your answers independently, without collaborating with other students.**

**Each answer should be no more than three sentences, and one sentence may be sufficient. If the question is ambiguous, address what you think is the most relevant meaning that the question might have. Be alert for words that have a distinct and non-standard technical meaning in the context of RCRS (“interest” is a good example).**

1. Give one example of how an RCRS issue might arise for each of the following topics, in the context of a Statistics PhD student. We will discuss these topics at greater length later in this course. Here, we are investigating what they mean to you at the start of the course.
  - (a) Building and maintaining healthy mentor/mentee relationships.  
YOUR ANSWER HERE
  - (b) Publication and peer review.  
YOUR ANSWER HERE
  - (c) Data and the reproducibility of research results.  
YOUR ANSWER HERE
  - (d) How to avoid mistakes; when a mistake becomes negligence.  
YOUR ANSWER HERE
  - (e) Recognizing and responding to conflicts of interest.  
YOUR ANSWER HERE
  - (f) Misconduct in research: plagiarism, falsification and fabrication.  
YOUR ANSWER HERE
  - (g) Plagiarism while working as a Graduate Student Instructor (GSI).  
YOUR ANSWER HERE

2. What are the main sources of funding for research? How has this led to the current requirements on teaching and practicing RCRS?

YOUR ANSWER HERE

3. What role does RCRS play in the value of scientific research and scholarship to society as a whole? What are the benefits and costs to individuals?

YOUR ANSWER HERE

4. How does your reputation as a responsible researcher and scholar become generated and transmitted through the academic community?

YOUR ANSWER HERE

5. How important is reputation as a responsible researcher and scholar, in the context of a modern academic career? How does this kind of reputation compare in importance to quantitative measures of academic success (publications in reputable journals; size and number of research grants)?

YOUR ANSWER HERE