Course description: Responsible Conduct in Science
Department of Brain and Cognitive Sciences
IAP 2020
9.S911

Coordinator: Matthew Wilson. 46-5233, x3-2046, mwilson@mit.edu

Location, Time, Dates:
Room 46-3015
2-5pm
M 1/13/20 – F 1/17/20

Attendance is mandatory and will be recorded.

Purpose:
To provide instruction and dialog on practical ethical issues relating to the responsible conduct of human and animal research in the brain and cognitive sciences. Specific emphasis will be placed on topics relevant to young researchers including data handling, animal and human subjects, misconduct, mentoring, intellectual property, and publication.

Format:
Assigned readings will be taken from the text “Scientific Integrity” by Francis L. Macrina (4th edition) or from relevant handouts, to be completed prior to each class. Sessions will begin with a lecture by faculty to introduce each topic. The class will then be divided into smaller discussion groups of 4-5 students each. Case studies prepared for each class will be evaluated and 2 groups will be selected to present each case for discussion by the entire group. Faculty will available to facilitate and guide discussion. Each student will submit a short written summary of the discussions at the end of each class.

Tests:
A short quiz on readings from the text will be given at the end of the final class.

Grading for the class is Pass/D/Fail.

• conflict of interest – personal, professional, and financial
• policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices
• mentor/mentee responsibilities and relationships
• collaborative research including collaborations with industry
• peer review
• data acquisition and laboratory tools; management, sharing and ownership
• research misconduct and policies for handling misconduct
• responsible authorship and publication
• the scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research
Schedule:

**Monday, January 13**
**Topic:** Mentoring, authorship, collaboration  
Lecturer: Nancy Kanwisher  
Faculty support: Elly Nedivi  
Text chapters:  
   - Ch 3 – Mentoring  
   - Ch 4 – Authorship and peer review  
   - Ch 8 – Collaboration

**Tuesday, January 14**  
**Topics:** Intellectual property, patents, conflict of interest, the scientist as a responsible member of society  
Lecturer: Ed Boyden  
Faculty support: Mark Bear  
Text chapters:  
   - Ch 9 – Intellectual property  
   - Ch 7 – Conflict of interest  
   - Ch 11 – Science, Technology, and Society

**Wednesday, January 15**  
**Topic:** Human interactions (12-2 lunch served)  
Lecturer: Sarah Rankin  
**Topic:** Human subjects (2-5pm)  
Lecturer: John Gabrieli  
Faculty support: Ev Fedorenko  
Text chapters:  
   - Ch 5 – Human experimentation

**Thursday, January 16**  
**Topic:** Animal Care and Use  
Lecturer: Susan Erdman  
Faculty support: Bob Desimone  
Text chapters:  
   - Ch 6 – Animal experimentation

**Friday, January 17**  
**Topics:** Scientific misconduct, record keeping, reporting results, and data selection  
Lecturer: Matt Wilson  
Faculty support: Steve Flavell  
Text chapters:  
   - Ch 1 - Misconduct  
   - Ch 2 – Ethics  
   - Ch 10 – Record keeping