Scientific Ethics

Course Number: 01EQ061

Instructor: Bryan J. Mathis (bmathis@md.tsukuba.ac.jp, office hours by appointment)

General Goals (GIO): Students will learn about generally accepted practices in the sciences and legal frameworks that define ethical behavior. At course’s end, students will be able to identify a large number of ethical issues and how to properly discuss and resolve them.

Specific Behavioral Objectives (SBO): This course will use traditional lectures and interactive presentations in the Socratic method for didactic learning. Students will also convene into groups for intensive discussion and reaction papers will be issued as homework to carry the learning outside of the classroom. Digital learning through iTunes modules will reinforce concepts using interactive technology.

Lecture Schedule/Main Topics:

1. (10, April) B.J. Mathis: Class Introduction and Ethics Discussion
2. (17, April) B.J. Mathis: General Ethics
3. (24, April) B.J. Mathis: General Scientific Issues Part I
4. (8, May) B.J. Mathis: General Scientific Issues Part II
5. (15, May) B.J. Mathis: Lab Issues Part I
6. (22, May) B.J. Mathis: Lab Issues Part II
7. (29, May) B.J. Mathis: Case Studies in Real Scientific Misconduct Part I
8. (5, June) B.J. Mathis: Case Studies in Real Scientific Misconduct Part II
9. (12, June) B.J. Mathis: Comprehensive Review of All Topics
10. (19, June) B.J. Mathis: Comprehensive Final Exam

Evaluation for Grades & Credits: Final grades will be based on the following criteria: final exam (60%), reaction papers and group assignments (30%), and class attendance and participation (10%).

Textbooks: Instructor will provide the class materials. No textbook will be used.

References