| Course number | G-LAS00 80007 LE20 | | |
|---|---|---|---|
| Course title (and course title in English) | Research Ethics and Integrity (Sci. & Tech., Life Sci.)<br>Research Ethics and Integrity (Sci. & Tech., Life Sci.) | Instructor's name, job title, and department of affiliation | Graduate School of Engineering<br>Professor,Cathy McNamee |
| Group | Common Graduate Courses | Field(Classification) | Social Responsibility and Profitability |
| Language of instruction | English | Old group | |
| Number of credits | 0.5 | | |
| Hours | 7.5 | Class style | Lecture<br>(Media-based course) |
| Year/semesters | 2025 •<br>Intensive, Second semester | | |
| Days and periods | Intensive<br>2nd semester, on Saturdays | Target year | Graduate students |
| Eligible students | For science students | | |

## [Overview and purpose of the course]

This lecture series will provide graduate students with information on ethics and integrity (science and technology) in the university and society. The lectures will provide various examples of research ethics and research fairness, such as why ethics and integrity are important in science and engineering, moral reasoning in the conduct of science, and how to conduct research while maintaining research standards. The lecturers will also explain how it is important to correctly handle experimental data and to have a sincere attitude toward research. The lecture series will comprise lectures and group work. The students will discuss issues concerning ethics and integrity in science and society. This lecture course will teach the students how act responsibly as a researcher.

## [Course objectives]

The lecture series will show graduate students what responsible behavior is required as a researcher. Case studies and discussions on misconduct in scientific research will allow the students to understand how a researcher can conduct research honestly.

## [Course schedule and contents)]

Lecture 1: Research Ethics and Integrity in Science (3 h)
1. Relation between science and integrity, and responsible conduct of research
2. Relation between ethics and science
3. Moral reasoning in the conduct of science
4. Possible ethical problems in scientific experiments

Lecture 2: Misconduct in scientific research (3 h)
1. Misconduct in scientific research
2. Distinguishing between mistakes made during honest research activities and misconduct
3. Why scientists/engineers would fabricate, falsify or plagiarize
4. How to avoid research misconduct

Lecture 3: Good scientific practice (1.5 h)
1. Precautions against cutting corners in science
2. Good scientific practice, and data collection and management
3. Responsibilities of scientists to society

Continue to Research Ethics and Integrity (Sci. & Tech., Life Sci.)(2)↓↓↓

Research Ethics and Integrity (Sci. & Tech., Life Sci.)(2)

**[Course requirements]**

None

**[Evaluation methods and policy]**

Evaluation is based on participation and submitted reports. Grading will be based on a pass/fail basis. At the end of the course, students must complete the Japan Society for the Promotion of Science e-learning course, " e-Learning Course on Research Ethics ".

* Students have to take the e-Learning course offered by JSPS (Japan Society for Promotion of Science). Association for the Promotion of Research Integrity (APRIN) e-learning courses are NOT available.

**[Textbooks]**

Not used

**[References, etc.]**

**（References, etc.）**

Francis L. Macrina (ed.) 『Scientific Integrity: Text and Cases in Responsible Conduct of Research』 （ ASM Press, 2014）ISBN:978-1555816612

Paul Oliver 『The Student's Guide To Research Ethics』 （Open University Press, 2010）ISBN:978-0335237975

**[Study outside of class (preparation and review)]**

Review content of lectures before class.

**[Other information (office hours, etc.)]**

This course is held online. **（メディア授業科目）**