科目ナンバリング G-LAS00 80007 LE20													
授業科目名 <英訳>	Tech. Resea	, Life Sci	cs and Integrity (Sci. &			担当者所属 職名・氏名 工学研		学研究	7科 教授 C		Cathy	athy McNamee	
群	大学院共	共通科目	群	分野(分類)	社会证	土会適合				使用言語 英語		語	
旧群		単位数	0.5単位	時間数	7.5時	間	授業	形態	冓義	義(メディア授業科目)			
	^{講年度・} 2025・ ^{講期} 後期集中		集中 12/7、12/14 各日 時~12時、12/21 時~10時30分				当学年	年 大学院生		対象学生		理系向	
「古以出りま	[授業の概要・日的]												

[授業の概要・目的]

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 actresponsibly as a researcher.

[到達目標]

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. An e-learning course on research ethics and research integrity will check your understanding.

[授業計画と内容]

Lecture 1: Ethics and Integrity in Science (3 h)

- 1.Definition of Ethics and Integrity
- 2.Methods, manners, and the responsible conduct of research
- 3. Ethics and the Scientist/Engineer
- 4. Moral Reasoning in the Conduct of Science
- 5. Discussion about possible ethical problems in scientific experiments

Lecture 2: Misconduct in scientific research (3 h)

- 1. Misconduct in scientific research (typical misconduct, undesirable research behavior)
- 2. Distinguishing between mistakes made during honest research activities and misconduct
- 3. Research misconduct case study examples
- 4. Discussion about why scientists and engineers would fabricate, falsify or plagiarize

Lecture 3: Good scientific practice (1.5 h)

- 1.Laboratory safety measures and environmental considerations
- 2. Scientific Mistakes and Precautions against Cutting Corners
- 3.Data Collection and Management Proper Handling of Experimental Data

Research Ethics and Integrity (Sci. & Tech., Life Sci.)(2) [履修要件] 特になし [成績評価の方法・観点] 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 ". [教科書] 使用しない [参考書等] (参考書) 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 [授業外学修(予習・復習)等] Review content of lectures before class. Participation in the "e-Learning Course on Research Ethics" from the Japan Society for the Promotion of Science (JSPS) [その他(オフィスアワー等)] This course is held online. (メディア授業科目) [主要授業科目(学部・学科名)]