科目ナンバリング	U-LAS70 10002 SE50							
授業科目名<英訳>	ILAS Seminar-E2 :How to Read a Scientific Paper（英語科学論文の読み方） ILAS Seminar-E2 :How to Read a Scientific Paper			担当者所属職名・氏名	生命科学研究科 准教授 Adam Tsuda GUY			
群	少人数群	単位数	2単位	週コマ数	1コマ	授業形態	ゼミナール（対面授業科目）	
開講年度・開講期	2024・前期	受講定員(1回生定員)	15 (15) 人	配当学年	主として1回生	対象学生	全学向	
曜時限	木5	教室	共北34			使用言語	英語	
キーワード	English / Biology / Scientific literature / Critical analysis							

[授業の概要・目的]

Scientific literacy and critical analysis are essential skills for a career in science, and a valuable life skill even for those who choose a career path outside science. In this class, we will begin by studying an influential paper together. This will introduce students to a basic approach to reading primary scientific literature that will help you to reach your own conclusions about the data. Next, each student will search for and pick a paper, and in class, together, we will try to understand everything about it: concepts, methods, analysis, interpretation and significance. This will be an opportunity to learn some science, as well as to see how experiments are designed and how statistical analyses are applied. Students hopefully will use their chosen papers as a springboard to explore subjects that are of particular interest to them. The class structure will depend on how many students enroll.
This course is recommended for students who are planning on pursuing graduate studies in biology or other science subjects in the future.

[到達目標]

Students will acquire the ability to read scientific papers on their own, becoming familiar with the technical writing and structure used in scientific journals.
Students will be shown how to track down additional information and search online databases for related or cited works.
Students will learn about some of the laboratory techniques and statistical analyses commonly used in biomedical research papers.
Most importantly, students will learn about the scientific principles of empiricism and skepticism, to perform their own critical analyses of scientific papers.

[授業計画と内容]

Students will learn some background about scientific discourse and publication in scientific journals. We will then read and analyse a landmark paper together in class. During each subsequent class, we will also spend a little time on each student's chosen paper. Students will learn by a combination of traditional class lecture and active learning methods such as small group work discussion, in-class quizzes, and one-on-one discussions with the instructor during this course.

1. Introductory Lecture
2. Getting Started: Types of Scientific Communication, What is Scientific Discourse? How Peer Review Works. Short student survey.
3. Introduction of a landmark or recent paper to read together in class. Introduction to using PubMed as a resource to search for papers.
4. The Anatomy of a Scientific Paper. Short quiz.

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5. The What? Why? How? of a Paper (in-class discussion and small group work)
6. Analysis of Methods, Figures and Results (small group work) Students should begin searching for a paper to analyse for their written assignment. I will discuss one-on-one about papers suitable for each student.
7. Analysis of the Discussion (small group work). Advice on Predatory Publishers and Paper Mills.
8. What is Critical Analysis? (in-class discussion)
9. Advice on writing your report. (in-class discussion, one-on-one work)
10. Basic Statistics. A discussion of Plagiarism. (in-class discussion)
11. Discussion of Writing Style, and some Advice. (in-class discussion, one-on-one work)
12. Class topics tailored to student needs (one-on-one work)
13. Class topics tailored to student needs (one-on-one work)
14. Class topics tailored to student needs (one-on-one work)
15. Exam day. Student written assignment due.
16. Feedback Class

This schedule is flexible, and will depend on how many students enroll in the course. The schedule also will depend on the types of papers that we are analysing.
The class is open to all 1st and 2nd year students, although the papers will mainly come from the field of my expertise, biology.

[履修要件]

This course will study scientific papers from the field of biology. Humanities or social sciences students are required to have studied biology subjects at high school.
Although it is not required, an intermediate level of English ability is highly recommended, for reading comprehension and in-class quizzes.

[成績評価の方法・観点]

Grading will be based on attendance and active class participation (80%), and a written homework assignment (20%), which will be a critical analysis of a paper chosen by the student. The written assignment will be graded on the basis of student comprehension and critical analysis, rather than grammatical standards of English.

[教科書]

使用しない

[参考書等]

（参考書）
I will provide additional background material, depending on the topic of each paper that is chosen by students.

[授業外学修（予習・復習）等]

Out of class reading may take 2-3 hours per week, mostly looking up technical terms, learning about the background for the papers that are discussed during class, or searching online databases for papers to analyse.

[その他（オフィスアワー等）]

In principle, anytime. Please contact the instructor by e-mail if you have any questions. For consultations about course-related matters outside class hours, please make an appointment directly or by e-mail.