Course number	U-LAS70 10002 SE50				
Course title (and course title in English)	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	**Instructor's name, job title, and department of affiliation**	Graduate School of Biostudies Associate Professor,GUY, Adam Tsuda		
Group	Seminars in Liberal Arts and Sciences	**Number of credits**	2	**Number of weekly time blocks**	1
Class style	seminar (Face-to-face course)	**Year/semesters**	2025・First semester	**Quota (Freshman)**	15 (15)
Target year	Mainly 1st year students	**Eligible students**	For all majors	**Days and periods**	Thu.5
Classroom	34, Yoshida-South Campus Academic Center Bldg. North Wing			**Language of instruction**	English
Keyword	English / Biology / Scientific literature / Critical analysis				

[Overview and purpose of the course]

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 life sciences in the future.

[Course objectives]

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.

[Course schedule and contents)]

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

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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.
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 studied will be from the field of biology.

[Course requirements]

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.

[Evaluation methods and policy]

Grading will be based on attendance and active class participation (70%), and a written homework assignment (30%), which will be a review of a scientific paper chosen by the student. The written assignment will be graded on the basis of student comprehension and critical analysis.

[Textbooks]

Not used

[References, etc.]

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

[Study outside of class (preparation and review)]

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.

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[Other information (office hours, etc.)]

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.

[Essential courses]