Course number	U-LAS70 10001 SJ50				
Course title (and course title in English)	ILASセミナー：分子細胞生物学入門（英語講義） ILAS Seminar :Introduction to Molecular Cell Biology	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	2024・First semester	Quota (Freshman)	15 (15)
Target year	Mainly 1st year students	Eligible students	For all majors	Days and periods	Mon.5
Classroom	Seminar room 24, ILAS Bldg.			Language of instruction	English (Japanese commentary)
Keyword	分子細胞生物学 / 英語 / Molecular Biology / Cell Biology / English				

[Overview and purpose of the course]

ミクロ系生物学（分子生物学・細胞生物学等）の英語での入門講義です。生物学の基礎知識を英語で学ぶ事を目的としています。英語資料を読み、現代の生命科学がどのように発展したか、補助的な資料を提示しつつ解説します。質疑応答はできるだけ英語でしてもらいます。分かり難い場合は適宜日本語での説明も付け加えますので、生物学・英語どちらかの知識が少なくても心配ありません。

This class is an introduction to molecular cell biology, in English. The objective of this class is to introduce students to the basic fundamentals of molecular cell biology, whilst gaining confidence in English listening and speaking skills at the same time. We will start at the most very basic level of atoms and simple chemistry, going on to learn about biological macromolecules, the Central Dogma of Molecular Biology, and learn some fundamentals of bioenergetics and cell structure and function. Later in the course we will touch on some slightly more advanced topics including DNA technology, cancer and genetic diseases, and evolutionary biology.

[Course objectives]

The course objective is to acquire, in English, knowledge of concepts in biochemistry, molecular biology and cell biology, leading to basic appreciation of the fundamentals of biology.

基礎的な生化学、分子生物学、細胞生物学の知識が得られる。日本人学生にとっては、教員からの基礎的な質問への返答を英語ですることにより、積極的な授業への参加姿勢が身に付く。

[Course schedule and contents)]

以下の様な項目について、項目あたり2~3週の授業を行う予定である。
授業回数はフィードバックを含め全15回とする

The class schedule is flexible, and in the latter half of the course I usually give the students the choice of what topics to study. In principle, the schedule is as follows:

1. Introductory Lecture
2. The Chemistry of Life

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3. Water, Carbon and Biological Macromolecules
4. Biological Macromolecules II
5. Energy and Life
6. Cell Structure and Function
7. The Central Dogma
8. The Central Dogma II
9. The Central Dogma III
10. Cell Division
11. DNA Technology
12. Cancer and Genetic Diseases
13. Introduction to Evolution
14. Evolution, Science & Society
15. Exam Class (written assignments due)
16. Feedback Class

[Course requirements]

High school-level chemistry or biology is required, and both is recommended.
Intermediate ability of English conversation is recommended.
However, the most important requirement is that students should be enthusiastic and motivated to learn about biomedical science topics in English.

[Evaluation methods and policy]

Class participation (50%); one coursework written assignment/essay (50%).
The written assignment must be submitted by Class 15 (exam day). Students have a choice of several topics for their essay.

[Textbooks]

Not used
Lecture handouts will be provided for each class.

[References, etc.]

（References, etc.）
Introduced during class

[Study outside of class (preparation and review)]

Students may need 2-3 hours per week to review the lecture materials, and look up any background or English as necessary. Some students may know the subjects already but need to learn the English vocabulary; other students may have good English skills but need to learn biology. Therefore, preparation and review work may involve a balance of reading about biology and acquisition of English technical vocabulary.

[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.