

基本情報/Course Schedule Information	
開講区分(開講学期)/Semester	Fall and Winter Term
曜日・時間/Day and Period	Tue2
開講科目名/Course Name (Japanese)	細胞生物学
開講科目名(英)/Course Name	Cell Biology
授業形態/Type of Class	講義科目/Lecture
単位数/Credits	2
担当教員/Instructor	IMAI Kaoru,MATSUNO Kenji

※メディア授業科目について

授業回数の半数以上を、多様なメディアを高度に利用して教室等以外の場所で行う授業を「メディア授業科目」としています。

学部学生が「メディア授業科目」を卒業要件に算入できるのは60単位が上限です。

なお、非該当の場合であっても、メディアを利用した授業を実施する場合があります。

授業担当教員一覧

詳細情報/Detailed Syllabus Information	
授業サブタイトル/Course Subtitle	
開講言語/Language of the Course	English
学習方法/Learning Method	聴講・視聴/Listening and watching face-to-face/online class,討論/Discussion ☒ Listening and watching face-to-face/online class: Listening and watching a lecture, video, or demonstration, face-to-face or via online (e.g., attending a face-to-face lecture, watching an on-demand video) ☐ Reading: Reading books and academic papers (e.g., summarizing an academic paper, reading information on a website) ☒ Discussion: Learning through question-and-answer interactions and exchanges of opinions among students and between students and the instructor (e.g., pair/group discussion, online chat, one-on-one guidance for writing an academic paper) ☐ Collaborative work: Working as a pair or a group (e.g., producing a poster through group work) ☐ Research: Collecting information from books and academic papers; gathering and analyzing data by fieldwork (e.g., review of previous research, fieldwork) ☐ Experience/practice: Learning from experience- and practice-based activities, and feedback on such activities (e.g., solving problems; laboratory work using instruments; on-campus and off-campus practical training; skills practice including sporting skills; project-based learning; internship) ☐ Presentation: Writing papers, making presentations, and creating works (e.g., report writing, oral/poster presentation, creation of works, portfolio development) ☐ Others(free description) 右の8つの学習方法のうち、該当するものにチェックをつけてください。 「その他(自由記述)」を選択した場合は、右の黄色セルに具体的な内容を入力してください。
授業の目的と概要/Course Objective	The cell is the unit of organism. For the study of either animals, plants or microbes, the understanding of the cell's constructing molecules, structures and functions is essential. This class is given as an introductory course for the students who intend to study biology further.
履修条件・受講条件/Requirement / Prerequisite	no requirement
出欠席及び受講に関するルール/Attendance and Student Conduct Policy	
教科書・指定教材/Textbooks	Alberts, et al., "Essential Cell Biology",5th edition, Garland Science Publishing
参考図書・参考教材/Reference	Developmental Biology Scot F. Gilbert
成績評価に関する補足情報/Additional Information on Grading	Participation to the class(30%), Reports (20%) and End and Mid-term Exam (50% in total).
特記事項/Special Note	
オフィスアワー/Office Hour	
実務経験のある教員による授業科目/Course conducted by instructors with practical experience	

※ 合理的配慮は定型文につき除外。

学習目標・成績評価詳細情報/Learning Goals &Grading Policy Information	
学習目標(1)/Learning Goal(1)	Be able to clearly explain cells, genomes, intracellular organelles, cytoskeletons with appropriate keywords.
学習目標(2)/Learning Goal(2)	Be able to understand the basics of Developmental biology
学習目標(3)/Learning Goal(3)	to understand the relationship between development and evolution.
学習目標(4)/Learning Goal(4)	
学習目標(5)/Learning Goal(5)	

↑ 5行以上必要な場合は、行を挿入してください。

	評価方法/Evaluation Method (プルダウンで選択してください。「その他(自由記述)」を選択した場合は、カッコ内に具体的な内容を入力してください。)				
学習目標/Learning Goals	中間試験/Midterm exam	レポート・論文/Report/paper	学習への参加度/Learning Engagement		
学習目標(1)/Learning Goal(1)	○		○		
学習目標(2)/Learning Goal(2)		○	○		
学習目標(3)/Learning Goal(3)		○	○		
学習目標(4)/Learning Goal(4)					
学習目標(5)/Learning Goal(5)					
評価割合(%)/Grade Breakdown	30%	20%	50%	%	%

↑ 5行以上必要な場合は、行を挿入してください。評価割合/Allocation of Marks (%)：100%

授業計画/Class Plan Detailed Information			
回/Time	題目/Title	内容/Content	授業時間外学習/ Independent Study Outside of Class
1	I. Introduction to cells (Chapter 1)		
2	II. How genes and genomes evolve? (Chapter 9)		
3	III. Analyzing genes and genomes (Chapter 10)		
4	IV. Intracellular compartments and transport (Chapter 15)		
5	V. Cytoskeleton (Chapter 17)		
6	VI. The cell division (Chapter 18)		
7	VI. The cell division (Chapter 18)		
8	Title:Cytoskeletons		
9	Development chordate		
10	Development sponge etc		
11	evolution1		
12	evolution2		
13	Development drosophila		
14	Development limb		
15	Development eye		
16	report		

↑ 16行以上必要な場合は、行を挿入してください。

授業担当教員/Instructor(s)					
教員氏名/Instructor Name	ふりがな/Name (hiragana)	所属・職名・講座名/Affiliation, Title, Course	居室/Office	内線/Extension	e-mail/E-mail
Kenji Matsuno	けんじ まつの				kmatsuno@bio.sci.osaka-u.ac.jp
Kaoru Imai	かおる いまい				imai@bio.sci.osaka-u.ac.jp

↑ 5行以上必要な場合は、行を挿入してください。