

Syllabus View[2015/Molecular Cell Biology A/SATO, Masamitsu/CHATER, Thomas Edward/LUO, Ray]

Course Information			
Year	2015	School	School of Advanced Science and Engineering
Course Code	BIOX24ZL		
First Academic disciplines	Biology		
Second Academic disciplines	Biology		
Third Academic disciplines	Cell biology		
Level	Intermediate, developmental and applicative		
Types of lesson	Lecture		
Course Title	Molecular Cell Biology A IPSE Course		
Instructor	SATO, Masamitsu/CHATER, Thomas Edward/LUO, Ray		
Term/Day/Period	fall semester 01:Tues.1		
Category	Elective Subjects	Eligible Year	2nd year and above Credits 2
Classroom	01:53-B01	Campus	Nishi-Waseda (Former: Okubo)
Course Key	28GE022001	Course Class Code	01
Main Language	English		

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Course Outline	<p>[IPSE subject]This course is the first part of a two part course on the molecular biology of the cell. This first part will focus on the introduction of the cell and its basic structural and functional characteristics. This course should be of interest not only to students planning a career in biology, but to anyone who is curious about the mystery of life. The students should have some background in biology. The class will be conducted entirely in English.</p> <p>[Prep and Review] Students are expected to read the recommended material prior to each class to increase their ability to follow the lectures and participate in discussions.</p> <p>[Preparation and Review] Students are advised to read the related chapter of the textbook before the lecture class. This will take 1 hour/week. Better to summarize what you have learned from the lecture every time. This will take another hour.</p>										
Objectives	<ul style="list-style-type: none"> Acquire an understanding of key concepts of biology and an appreciation of basic cellular functions. Inspire fascination in the life around us, possibly encouraging students to pursue a career in biological sciences. 										
Course Schedule	<p>The schedule may be changed:</p> <p>Week 1 (29 Sept) – From Molecules & Cells to Tissues & Organisms Week 2 (6 Oct) – Chemical Principles and Cellular Biochemistry Week 3 (13 Oct) – Double lecture: 1. Protein Structure and Pathways 2. Protein Function and Regulation Week 5 (27 Oct) – From Nucleic Acids to Chromosomes to Genomes Week 6 (3 Nov)* – Introduction to DNA and Transcription Week 7 (10 Nov) – DNA Replication and Repair Week 8 (17 Nov) – Midterm Exam Week 9 (24 Nov) – From DNA to Protein (Thomas Chater) Week 10 (1 Dec) – Control of Gene Expression (Thomas Chater) Week 11 (8 Dec) – Membrane Structure (Thomas Chater) Week 12 (15 Dec) – Membrane Transport (Thomas Chater) Week 13 (22 Dec) – Intracellular Compartments and Protein Sorting (Thomas Chater) Week 14 (19 Jan)** – Energy Conversion: Mitochondria and Chloroplasts (Thomas Chater) Week 15 (TBA) – Final Exam (Thomas Chater)</p> <p>* 3 November is a national holiday, but our faculty has lectures on the day. ** Our faculty has no lectures on 12 Jan 2016.</p> <p>This is a tentative schedule; the subjects and schedule may be adjusted as the course progresses depending on the needs and interests of the students.</p>										
Textbooks	Molecular Biology of the Cell (Sixth Edition) by Bruce Alberts et al., published by Garland Science.										
Evaluation	<table border="1"> <thead> <tr> <th>Rate</th> <th>Evaluation Criteria</th> </tr> </thead> <tbody> <tr> <td>Exam: 70%</td> <td>30% midterm exam + 40% final exam</td> </tr> <tr> <td>Papers: 0%</td> <td>N/A</td> </tr> <tr> <td>Class Participation: 30%</td> <td>Determined from attendance and small quizzes.</td> </tr> <tr> <td>Others: 0%</td> <td>N/A</td> </tr> </tbody> </table>	Rate	Evaluation Criteria	Exam: 70%	30% midterm exam + 40% final exam	Papers: 0%	N/A	Class Participation: 30%	Determined from attendance and small quizzes.	Others: 0%	N/A
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