View Syllabus Information

Course Information

Year	2020	**School**	School of Advanced Science and Engineering		
Course Title	Molecular Cell Biology A English-based Undergraduate Program				
Instructor	SUGIYAMA, Kaori				
Term/Day/Period	fall semester Tues.1				
Category	Compulsory Subjects	**Eligible Year**	2nd year and above	**Credits**	2
Classroom		**Campus**	Nishi-Waseda (Former: Okubo)		
Course Key	28ME012004	**Course Class Code**	01		
Main Language	English				
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		

Syllabus Information

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Course Outline	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. [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.
Objectives	・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.
before/after course of study	[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.
Course Schedule	1: 2020/09/29 Week 1 - Introduction of Molecular Cell Biology 2: 2020/10/06 Week 2 - Cell Chemistry and Biosynthesis 3: 2020/10/13 Week 3 - Proteins 4: 2020/10/20 Week 4 - DNA, Chromosomes, and Genomes 5: 2020/10/27 Week 5 - TBA

6: 2020/11/3 Week 6 - Midterm Exam

7: 2020/11/10 Week 7 - DNA Replication, Repair and Recombination

8: 2020/11/17 Week 8 - From DNA to Protein

9: 2020/11/24 Week 9 - Control of Gene Expression

10: 2020/12/1 Week 10 - Membrane Structure and Membrane Transport

11: 2020/12/8 Week 11 - Intracellular Compartments and Protein Sorting

12: 2020/12/15 Week 12 - Energy Conversion: Mitochondria and Chloroplasts

13: 2020/12/22 Week 13 - TBA

14: 2021/01/12 Week 14 - TBA

15: 2021/01/19 Week 15 - Final Exam

Textbooks Molecular Biology of the Cell by Bruce Alberts et al., published by Garland Science.

Evaluation

	Rate	Evaluation Criteria
Exam:	60%	20% midterm exam + 40% final exam
Papers:	0%	N/A
Class Participation:	40%	Determined from attendance.
Others:	0%	N/A

Note / URL The mini-test or short report will provide for each lesson and evaluate as attendance score.