

Oyama College		Year	2022	Course Title	Life Science
Course Information					
Course Code	0005		Course Category	Specialized / Elective	
Class Format	Lecture		Credits	Academic Credit: 2	
Department	Advanced Course of Materials Chemistry and Bioengineering		Student Grade	Adv. 1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	SASANUMA Izumi				
Course Objectives					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1					
Achievement 2					
Achievement 3					
Assigned Department Objectives					
学習・教育到達度目標 ④ JABEE (A)					
Teaching Method					
Outline					
Style					
Notice					
Characteristics of Class / Division in Learning					
<input type="checkbox"/> Active Learning		<input type="checkbox"/> Aided by ICT		<input checked="" type="checkbox"/> Applicable to Remote Class	<input type="checkbox"/> Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
1st Semester	1st Quarter	1st	Biomaterials (Polymers) (Investigate the course content in advance and submit a report on your understanding)	Understanding of biomaterials (polymers)	
		2nd	Biomaterials (metals, ceramics) (conduct preliminary research on the course content and submit a report on your understanding)	Understand biomaterials (metals, ceramics)	
		3rd	Biomaterials (composite materials, biocompatibility) (Investigate the class content in advance and submit a report on your understanding)	Understanding of biomaterials (composite materials, biocompatibility)	
		4th	Biomaterials (biological reactions, artificial organs) (conduct preliminary research on issues related to class content and submit a report on your understanding)	Understanding of biomaterials (biological reactions, artificial organs)	
		5th	Biomaterials (biological reactions, artificial organs) (conduct preliminary research on issues related to class content and submit a report on your understanding)	Understanding the design of pharmaceuticals (cardiovascular system)	
		6th	Design of pharmaceuticals (cerebral nervous system) (conduct preliminary research on issues related to class content and submit a report on your understanding)	Understanding Pharmaceutical Design (Brain Nervous System)	
		7th	Design of pharmaceuticals (antibiotics, anticancer drugs) (conduct preliminary research on the issues related to the class content and submit a report on your understanding)	Understanding the design of pharmaceuticals (antibiotics, anticancer drugs)	
		8th	Mid-term exam		
	2nd Quarter	9th	Cell Engineering: Ectoderm System (Investigate the course content in advance and submit a report of your understanding)	Cell Engineering: Understanding the Ectoderm System	
		10th	Cell Engineering: Endoderm Lineage (Investigate the course content in advance and submit a report on your understanding)	Cell Engineering: Understanding the Endoderm System	
		11th	Cell engineering: Mesoderm system (Investigate the issues in the class in advance and submit a report on your understanding)	Cell Engineering: Understanding Mesoderm System	
		12th	Genetic engineering: genetically modified plants, genetically modified animals, cloned animals (Investigate the class content in advance and submit a report on your understanding)	Genetic Engineering: To understand genetically modified plants, genetically modified animals, and cloned animals	
		13th	Genetic Engineering: Genetic Diagnosis, Genetic Analysis (Investigate the issues in the class in advance and submit a report on your understanding)	Genetic Engineering: Understanding of genetic diagnosis and genetic analysis	

		14th	Biotechnology: Mass production of useful substances (Investigate the class content in advance and submit a report on your understanding)	Biotechnology: Understanding Mass Production of Useful Materials
		15th	Biotechnology: Environment (Investigate the course content in advance and submit a report on your understanding)	Understanding the use of biotechnology in environmental science
		16th		

#### Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	0	0	0	0	0	0	0
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0