

Oyama College		Year	2022		Course Title	Advanced Course Experiments	
Course Information							
Course Code	0001		Course Category		Specialized / Compulsory		
Class Format	Experiment		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	TAKE Seisho,SASANUMA Izumi,TANAKA Takakuni,SAKAI Hiroshi,KOUYA Tomoaki,KASHIMA Keita						
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 ② JABEE (B) JABEE (d-2) JABEE (d-3) JABEE (e) JABEE (h) JABEE (i)							
Teaching Method							
Outline							
Style							
Notice							
Characteristics of Class / Division in Learning							
<input type="checkbox"/> Active Learning		<input type="checkbox"/> Aided by ICT		<input type="checkbox"/> Applicable to Remote Class		<input type="checkbox"/> Instructor Professionally Experienced	
Course Plan							
			Theme	Goals			
1st Semester	1st Quarter	1st	◎Biological Chemistry 1. Plant Tissue Culture 2. Analysis of Proteins and Amino Acids 3. Analysis of Carbohydrates 4. RNA Extraction 5. Aromas and Terpenes				
		2nd	◎Bioengineering 1.Evaluation of the growth rate, observing prokaryotic and eukaryotic microorganisms 2.Extraction and and quantification of DNA 3.Protein purification (Gel filtration chromatography)				
		3rd	◎Inorganic chemistry				
		4th	◎Physical Chemistry Absorption spectra and molecular structure, Infrared spectra, The temperature dependence of reaction rates, Acidity constant				
		5th	Engineering design				
		6th					
		7th					
		8th					
	2nd Quarter	9th					
		10th					
		11th					
		12th					
		13th					
		14th					
		15th					
		16th					
Evaluation Method and Weight (%)							
	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	75	25	0	0	0	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	75	25	0	0	0	0	100

Cross Area Proficiency	0	0	0	0	0	0	0
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