

Tsuyama College		Year	2021	Course Title	Experiments in Chemistry
Course Information					
Course Code	0065		Course Category	Specialized / Compulsory	
Class Format	Experiment		Credits	School Credit: 1	
Department	Department of Integrated Science and Technology Advanced Science Program		Student Grade	4th	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials	Reference book: K.L. Williamson. Microscale Organic Chemistry Experiments (Maruzen)				
Instructor	KATORI Shigetaka, HIROKI Kazuaki, MORITOMO Hiroki				
Course Objectives					
To deepen students' knowledge of physical chemistry, inorganic chemistry, analytical chemistry, and organic chemistry through experiments and to acquire solid experimental skills.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Be able to perform experiments and make accurate measurements in physical chemistry and prepare reports with correct text.		Be able to perform physical chemistry experiments with precision and write accurate reports.		The student cannot write a report at the minimum level.
Achievement 2	Be able to perform experiments in inorganic/analytical chemistry with certainty and accuracy and prepare reports with correct text.		Be able to perform experiments in inorganic and analytical chemistry and prepare reports with correct sentences.		The student cannot write a report at the minimum level.
Achievement 3	Be able to perform synthesis, purification and structural analysis of typical organic chemical reactions, and write a report based on the results obtained in a correct manner.		Be able to follow the example of synthesis, purification and structural analysis of typical organic reactions, and write a report with correct text based on the results obtained.		The student cannot write a report at the minimum level.
Assigned Department Objectives					
Teaching Method					
Outline	Basic experiments in physical chemistry, inorganic/analytical chemistry, and organic chemistry are conducted, and students are required to organize and analyze the results of these experiments and to write a report on them.				
Style	Students are divided into groups on the themes presented in the class. Students must take turns to complete the experiments in turn.				
Notice	This is a compulsory subject. Students must complete the course (absent for less than 1/5 of the scheduled class hours) and acquire credits to complete the course.				
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	Guidance, Safety Training	Understand the precautions to be taken in order to perform the experiment safely and make it your own.	
		2nd	Organic Chemistry Experiment 1	Be able to perform experiments correctly and reliably. Be able to organize and analyze the results obtained and prepare reports.	
		3rd	same as above	same as above	
		4th	Organic Chemistry Experiment 2	same as above	
		5th	same as above	same as above	
		6th	Organic Chemistry Experiment 3	same as above	
		7th	same as above	same as above	
		8th	Reserve Day		
	2nd Quarter	9th	Physical Chemistry Experiment 1	same as above	
		10th	same as above	same as above	
		11th	Physical Chemistry Experiment 2	same as above	
		12th	same as above	same as above	
		13th	Inorganic and analytical chemistry experiments	same as above	
		14th	same as above	same as above	
		15th	Reserve Day		
		16th	Summary, equipment inspection, and general cleaning.	same as above	
Evaluation Method and Weight (%)					

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	0	0	0	0	0	100	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	0	0	0	0	0	100	100
Cross Area Proficiency	0	0	0	0	0	0	0