

Akashi College		Year	2022		Course Title	Science III B
Course Information						
Course Code	4306			Course Category	General / Compulsory	
Class Format	Lecture			Credits	School Credit: 2	
Department	Mechanical Engineering			Student Grade	3rd	
Term	Year-round			Classes per Week	2	
Textbook and/or Teaching Materials						
Instructor	INOUE Tsutomu					
Course Objectives						
1. Can explain and calculate the basic matters related to the conditions of substances. 2. Can explain and calculate the basic matters related to chemical reactions. 3. Can explain and calculate the basic matters related to inorganic substances. 4. Can explain and calculate the basic matters related to organic substances.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	Can fully and accurately explain and calculate the basic matters related to the conditions of substances.		Can explain and calculate the basic matters related to the conditions of substances.		Cannot explain and calculate the basic matters related to the conditions of substances.	
Achievement 2	Can fully and accurately explain and calculate the basic matters related to chemical reactions.		Can explain and calculate the basic matters related to chemical reactions.		Cannot explain and calculate the basic matters related to chemical reactions.	
Achievement 3	Can fully and accurately explain and calculate the basic matters related to inorganic substances.		Can explain and calculate the basic matters related to inorganic substances.		Cannot explain and calculate the basic matters related to inorganic substances.	
Achievement 4	Can fully and accurately explain and calculate the basic matters related to organic substances.		Can explain and calculate the basic matters related to organic substances.		Cannot explain and calculate the basic matters related to organic substances.	
Assigned Department Objectives						
Teaching Method						
Outline	The objectives of this course is to gain a basic knowledge of chemicals, and to develop scientific thinking skills by understanding the basic theories of chemistry.					
Style	Regular classes will be taught in a lecture style, and there will also be experiments in some weeks.					
Notice	We hope that by observing their everyday lives scientifically, students will recognize that chemistry is all around us. CBT may be done on a substitute date. * Liaison: Ogasawara Students who miss 1/3 or more of classes will not be eligible for a passing grade.					
Characteristics of Class / Division in Learning						
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced
Course Plan						
			Theme	Goals		
1st Semester	1st Quarter	1st	Conditions of substances 1	Can explain and calculate the basic matters related to the conditions of substances.		
		2nd	Conditions of substances 2	Can explain and calculate the basic matters related to the conditions of substances.		
		3rd	Conditions of substances 3	Can explain and calculate the basic matters related to the conditions of substances.		
		4th	Chemical reaction and energy 1	Can explain and calculate the basic matters related to chemical reactions and energy.		
		5th	Chemical reaction and energy 2	Can explain and calculate the basic matters related to chemical reactions and energy.		
		6th	Chemical reaction and energy 3	Can explain and calculate the basic matters related to chemical reactions and energy.		
		7th	Chemical reaction and energy 4	Can explain and calculate the basic matters related to chemical reactions and energy.		
		8th	Summary of the 1st Q	Can explain and calculate the basic matters learned in the 1st Q.		
	2nd Quarter	9th	Conditions of substances / Chemical reaction and energy Summary	Can explain and calculate the basic matters related to the conditions of substances, chemical reactions, and energy.		
		10th	Reaction rates and equilibrium 1	Can explain and calculate the basic matters related to reaction rates and equilibrium.		
		11th	Reaction rates and equilibrium 2	Can explain and calculate the basic matters related to reaction rates and equilibrium.		
		12th	Reaction rates and equilibrium 3	Can explain and calculate the basic matters related to reaction rates and equilibrium.		
		13th	Reaction rates and equilibrium 4	Can explain and calculate the basic matters related to reaction rates and equilibrium.		

2nd Semester		14th	Reaction rates and equilibrium 5	Can explain and calculate the basic matters related to reaction rates and equilibrium.
		15th	Reaction rates and equilibrium 6	Can explain and calculate the basic matters related to reaction rates and equilibrium.
		16th	Final exam	
	3rd Quarter	1st	Reaction rates and equilibrium Summary	Can explain and calculate the basic matters related to reaction rates and equilibrium.
		2nd	Inorganic substances 1	Can explain and calculate the basic matters related to inorganic substances.
		3rd	Inorganic substances 2	Can explain and calculate the basic matters related to inorganic substances.
		4th	Inorganic substances 3	Can explain and calculate the basic matters related to inorganic substances.
		5th	Inorganic and organic substances 1	Can explain and calculate the basic matters related to inorganic and organic substances.
		6th	Inorganic and organic substances 2	Can explain and calculate the basic matters related to inorganic and organic substances.
		7th	Inorganic and organic substances 3	Can explain and calculate the basic matters related to inorganic and organic substances.
		8th	Summary of the 3rd Q	Can explain and calculate the basic matters learned in the 3rd Q.
	4th Quarter	9th	Organic substance 1	Can explain and calculate the basic matters related to organic substances.
		10th	Organic substance 2	Can explain and calculate the basic matters related to organic substances.
		11th	Organic substance 3	Can explain and calculate the basic matters related to organic substances.
		12th	Organic substance 4	Can explain and calculate the basic matters related to organic substances.
		13th	Organic substance 5	Can explain and calculate the basic matters related to organic substances.
		14th	Organic substance 6	Can explain and calculate the basic matters related to organic substances.
		15th	CBT chemistry	
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Report • Little test • Task	Total
Subtotal	60	40	100
Basic Proficiency	60	40	100
Specialized Proficiency	0	0	0
Cross Area Proficiency	0	0	0