

Oyama College		Year	2022	Course Title	General Science
Course Information					
Course Code	0014		Course Category	General / Compulsory	
Class Format	講義・演習		Credits	School Credit: 2	
Department	Department of Innovative Electrical and Electronic Engineering		Student Grade	1st	
Term	Year-round		Classes per Week	2	
Textbook and/or Teaching Materials	「地学基礎」啓林館、「生物基礎」東京書籍、"Earth Science Fundamentals" by Keirinkan and "Biology Fundamentals" by Tokyo Shoseki				
Instructor					
Course Objectives					
1. To be able to explain the movements of the Earth's interiors and exteriors 2. To be able to explain what all life have in common and how life has changed 3. To be able to explain specific examples of how life affects the Earth 4. To be able to explain specific examples of how humans affect the Earth					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can explain how the Earth's interiors and exteriors move. Additionally, can explain how each parts affect one another.		Can explain how plates, the oceans, and the atomosphere moves.		Can not explain how parts of the Earth are moving.
Achievement 2	Can explain what all life has in common and how life as changed. Additionally, can explain how different life forms influence on another.		Can explain what all life has in common and how life as changed.		Can not explain what all life have in common and how life has changed.
Achievement 3	Can explain specific examples of how life has changed the Earth. Additionally, can explain human's role in the change.		Can explain at least one example of how life has changed the Earth.		Can not explain how life has changed the Earth.
Achievement 4	Can explain how humans have changed the Earth. Additionally, can explain how the future of humans will change the future of the Earth.		Can explain how humans have changed the Earth.		Can not explain how humans have changed the Earth.
Assigned Department Objectives					
学習・教育到達度目標 ③					
Teaching Method					
Outline	This is not an English class, instead, you will be studying about life and earth sciences in English. One reason for this is that knowing a foreign language will become more important than ever. Today, knowing English does not only allow you to communicate with many foreigners, it gives you immediate access to the latest discoveries and innovations in science and technology. Another reason is that by studying in a foreign language, your thought process goes beyond just words, and you begin to think and understand the world through images and in 3-dimensions. Such thinking abilities is necessary for becoming the best engineer or scientist you can be.				
Style	(Japanese) Before Class: Read the determined pages of your textbook.  (English) Class [1]: [S] vocabulary introduction → [T] explains about topic, [S] listen about the topic → [S] take quiz [T&F, multiple choice] (English) Class [2]: [T] reviews class [1], explains the day's activity → [S] do the day's activity → [S] present → [T] reviews topic → [S] take quiz [short answer]  [T] is the teacher [S] is students				
Notice	Generally, the class is done in mostly English, but students may ask questions in Japanese if they need help.				
Characteristics of Class / Division in Learning					
<input checked="" 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 r	1st Quarter	1st	Guidance Earth Science in Japan [1]	Can understand and explain Japan's geologic situation.	
		2nd	Volcanoes [1]	Can understand and explain how magma is formed.	
		3rd	Volcanoes [2]	Can explain how magma is formed in English.	
		4th	Plates [1]	Can understand and explain how plates move.	
		5th	Plates [2]	Can explain how plates move in English.	
		6th	Earthquakes [1]	Can understand and explain how earthquakes are formed.	
		7th	Earthquakes [2]	Can explain how earthquakes are formed in English.	
		8th	Mid-term Exam	Can explain the Earth Science of Japan, volcanoes, plates, and earthquakes in English.	

2nd Semester	2nd Quarter	9th	Oceans [1]	Can understand and explain how tsunamis are formed and how water moves.	
		10th	Oceans [2]	Can explain how tsunamis are formed and how water moves in English.	
		11th	Atmosphere [1]	Can understand and explain how the atmosphere moves.	
		12th	Atmosphere [2]	Can explain how the atmosphere moves in English.	
		13th	Earth Science Fundamentals [1]	Can understand and explain why plates, water, and air moves.	
		14th	Earth Science Fundamentals [2]	Can explain why plates, water, and air moves in English.	
		15th	Relationship between living things and the Earth [1]	Can understand and explain the fundamentals of how living things affect the Earth.	
		16th	First Semester Exam	Can explain about the oceans, atmosphere, and the large-scale movements of all the Earth in English.	
	2nd Semester	3rd Quarter	1st	Components of Life	Can understand and explain the basic components of life.
			2nd	Cell Functions [1]	Can understand and explain the function of cells.
			3rd	Cell Functions [2]	Can explain the function of cells in English.
			4th	Evolution [1]	Can understand and explain the evolution of living things.
			5th	Evolution [2]	Can explain the evolution of living things in English.
			6th	Plant Succession and Biomes [1]	Can understand and explain environments based on their geographical location.
			7th	Plant Succession and Biomes [2]	Can understand and explain environments based on their geographical location.
			8th	Mid-term Exam	Can explain the components of life, cells, evolution, plant succession, and biomes in English.
4th Quarter		9th	Elemental Cycles [1]	Can understand and explain carbon and nitrogen cycles.	
		10th	Elemental Cycles [2]	Can explain carbon and nitrogen cycles in English.	
		11th	Energy Flow [1]	Can understand and explain how energy flows between states.	
		12th	Energy Flow [2]	Can explain how energy flows between states in English.	
		13th	Environmental Problems [1]	Can understand and explain environmental problems.	
		14th	Environmental Problems [2]	Can explain environmental problems in English.	
		15th	Life Science Fundamentals	Can explain how life, elements, energy, and environment are connected.	
		16th	Second Semester Exam	Can explain about cycles, how energy flows, ecosystems, and environmental problems in English.	
Evaluation Method and Weight (%)					
	Quizzes [28]	Semester exams [2]	Mid-term exams [2]	Total	
Subtotal	40	30	30	100	
Basic Proficiency	40	30	30	100	