

Akashi College					Mechanical Engineering								Year				2023										
Department Goals																											
Course Category		Course Title	Course Code	Credit Type	Credits	Class Hours per Week																Instructor	Division in Learning				
						1st Year				2nd Year				3rd Year				4th Year						5th Year			
						1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q			1st Q	2nd Q	3rd Q	4th Q
General	Common	Japanese I-1	5101	School Credit	1	2																TANG E Atsuko					
General	Common	Japanese I-2	5102	School Credit	1	2																TANG E Atsuko					
General	Common	History-1	5103	School Credit	1	2																ARAKAWA Hironori					
General	Common	History-2	5104	School Credit	1	2																ARAKAWA Hironori					
General	Common	Mathematics I A-1	5105	School Credit	2	4																TAKATA Isao					
General	Common	Mathematics I A-2	5106	School Credit	2	4																TAKATA Isao					
General	Common	Mathematics I B-1	5107	School Credit	1	2																OMODA Yasuhiro					
General	Common	Mathematics I B-2	5108	School Credit	1	2																OMODA Yasuhiro					
General	Common	Science I -1	5109	School Credit	1	2																TAKEUCHI Masahiro					
General	Common	Science I -2	5110	School Credit	1	2																TAKEUCHI Masahiro					
General	Common	Physical Education I-1	5111	School Credit	1	2																GOTOH Takayuki,KO BAYASHI Yuki					
General	Common	Physical Education I-2	5112	School Credit	1	2																GOTOH Takayuki,ISHIDA Masami					
General	Common	English I A-1	5113	School Credit	1	2																AKIMOTO Hiromi					
General	Common	English I A-2	5114	School Credit	1	2																AKIMOTO Hiromi					

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Sp eci ali ze d	Co m pu iso ry	Design and Drawing I B	5130	School Credit	1	2	SHI Feng ui	
Sp eci ali ze d	Co m pu iso ry	Manufacturing Engineering Practice I A	5131	School Credit	1	2	KATO H Takahi ro,OH MORI Shiget oshi	
Sp eci ali ze d	Co m pu iso ry	Manufacturing Engineering Practice I B	5132	School Credit	1	2	KATO H Takahi ro,OH MORI Shiget oshi	
Sp eci ali ze d	Co m pu iso ry	Practice on Mechanical Engineering I A	5133	School Credit	1	2	MORIS HITA Tomo hiro	
Sp eci ali ze d	Co m pu iso ry	Practice on Mechanical Engineering I B	5134	School Credit	1	2	KATO H Takahi ro,OH MORI Shiget oshi	
Sp eci ali ze d	Co m pu iso ry	Fundamentals of Engineering	5135	School Credit	1	2	KUBO TA Ikumi	
Ge ne ral	Co m pu iso ry	Japanese II-1	6201	School Credit	1	2	TANG E Atsuko	
Ge ne ral	Co m pu iso ry	Japanese II-2	6202	School Credit	1	2	TANG E Atsuko	
Ge ne ral	Co m pu iso ry	Introduction to Global Studies	6203	School Credit	1	2		
Ge ne ral	Co m pu iso ry	Public	6204	School Credit	1	2		
Ge ne ral	Co m pu iso ry	Mathematics II A-1	6205	School Credit	2	4	MATS UMIYA Atusi,	
Ge ne ral	Co m pu iso ry	Mathematics II A-2	6206	School Credit	2	4	MATS UMIYA Atusi, OMOD A Yasuhi ro	
Ge ne ral	Co m pu iso ry	Mathematics II B-1	6207	School Credit	1	2	TAKAT A Isao	
Ge ne ral	Co m pu iso ry	Mathematics II B-2	6208	School Credit	1	2	TAKAT A Isao	
Ge ne ral	Co m pu iso ry	Science II A-1	6209	School Credit	1	2	TAKEU CHI Masah iro	
Ge ne ral	Co m pu iso ry	Science II A-2	6210	School Credit	1	2	TAKEU CHI Masah iro,	

General	Commonsory	Science II B-1	6211	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					2																SAKURAI Yasuhiro	
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General	Commonsory	Co + w o r k I A	6219	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					2																All faculty	
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General	Elective	ICT Qualification I	6221	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td>1</td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					1		1														TAKUCHI Masahiro	
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General	Commonsory	Japanese II -1	6223	School Credit	2	<table><tr><td></td><td></td><td></td><td></td><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					4																KUBOTA Ikumi	
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General	Commonsory	Japanese Practice I	6225	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							2														KUBOTA Ikumi	
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Specialized	Commonsory	Programming Fundamentals	6226	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							2														TANAKA Seiichi	
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Specialized	Commonsory	Design and Drawing II A	6227	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					2																MATSUZUKA Naoki	
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Sp eci ali ze d	Co m pu iso ry	Design and Drawing II B	6228	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							2														MATS UZUK A Naoki	
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Sp eci ali ze d	Co m pu iso ry	Manufacturing Engineering Practice II A	6229	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					2																KATO H Takah iro,OH MORI Shiget oshi	
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Sp eci ali ze d	Co m pu iso ry	Practice on Mechanical Engineering II A	6231	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					2																KATO H Takah iro,OH MORI Shiget oshi	
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Sp eci ali ze d	Co m pu iso ry	Practice on Mechanical Engineering II B	6232	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							2														KATO H Takah iro,SEK IMORI Daisuk e	
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Sp eci ali ze d	Co m pu iso ry	Manufacturing Engineering I	6233	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>					2																KATO H Takah iro	
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Sp eci ali ze d	Co m pu iso ry	Manufacturing Engineering II	6234	School Credit	1	<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							2														KATO H Takah iro	
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Akashi College		Year	2023		Course Title	Japanese I-1	
Course Information							
Course Code		5101		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 1	
Department		Mechanical Engineering		Student Grade		1st	
Term		First Semester		Classes per Week		2	
Textbook and/or Teaching Materials		中島国彦 他『精選現代の国語』『精選言語文化』（明治書院）、『新訂総合国語便覧』（第一学習社）					
Instructor		TANGE Atsuko					
Course Objectives							
1) To capture and summarize the composition and development of logical sentences (essays and critic articles) accurately. 2) Can correctly read the different points of view of people and things drawn in literary sentences (novels and essays) and to be able to express the student's own opinions. 3) To elaborate texts and reports, create sentences that devise a logical structure based on classified information. To be able to transmit information effectively.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		The students can well summarize and explain the composition of a text.		The students can summarize and explain the composition of a text.		The students can not summarize and explain the composition of a text.	
Achievement 2		The students can well capture the characters figure and subject and evaluate it critically		The students can capture the characters figure and subject and evaluate it critically		The students can not capture the characters figure and subject and evaluate it critically	
Achievement 3		The students can well form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.		The students can form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.		The students can not form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.	
Assigned Department Objectives							
Teaching Method							
Outline		To acquire basic knowledge of the Japanese language through the reading of various texts such as modern review papers, novels, poetry, and classical texts. To develop logical reading and text expression skills and make use of them linguistically, in an organized and sensitivity way.					
Style		Classes will be basically held in a lecture style, but there will be quizzes and assignments from time to time.					
Notice		To keep in mind that the Japanese language is the base of all subjects, including science subjects. The students should actively engage in the lessons without neglecting preparation and review. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
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	Course guidance , Reading "Futo" and "Omowazu"		Understand how classes will be taught and what to prepare		
		2nd	Reading "Futo" and "Omowazu"		Can properly understand the content according to the expression		
		3rd	Reading "Futo" and "Omowazu"		Can understand the content and express one's opinion		
		4th	Reading comprehension Rashomon (Akutagawa Ryunosuke)		Can properly understand the content according to the expression		
		5th	Reading comprehension Rashomon (Akutagawa Ryunosuke)		Read the character image of the character according to the expression		
		6th	Reading comprehension Rashomon (Akutagawa Ryunosuke)		Regarding novels, appropriately understand the interaction between the characters, and correctly read the storyline.		
		7th	Reading comprehension Rashomon (Akutagawa Ryunosuke)		Regarding novels, to taste the ending of the work, and give personal opinions about the text.		
		8th	Reading comprehension Rashomon (Akutagawa Ryunosuke)		Understand the characteristics of the work from the top of literary history		
	2nd Quarter	9th	Reading Ujisuyi monogatari		Understood from the history of literature. Can read aloud properly and understand the meaning of the sentence		
		10th	Reading Ujisuyi monogatari		Understand the characteristics of the work from the top of literary history		
		11th	Reading Ise monogartari		Understood from the history of literature. Can read aloud properly and understand the meaning of the sentence		
		12th	Reading Ise monogartari		Understand the characteristics of the work from the top of literary history		
		13th	Reading Aesthetics are a resource		To understand Ancient Japanese parts of speech and the content of the essay		

		14th	Reading Aesthetics are a resource	To understand Ancient Japanese Auxiliary verbs and the content of the essay		
		15th	Reading Aesthetics are a resource	To understand and explain the content of the essay and the aesthetics of middle ages Japan		
		16th	End term exams			
Evaluation Method and Weight (%)						
		Examination	Quizes	Behavior	Other	Total
Subtotal		80	10	10	0	100
Basic Proficiency		80	10	10	0	100
Specialized Proficiency		0	0	0	0	0
Cross Area Proficiency		0	0	0	0	0

Akashi College		Year	2023		Course Title	Japanese I-2	
Course Information							
Course Code		5102		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 1	
Department		Mechanical Engineering		Student Grade		1st	
Term		Second Semester		Classes per Week		2	
Textbook and/or Teaching Materials		中島国彦 他『精選現代の国語』『精選言語文化』（明治書院）、『新訂総合国語便覧』（第一学習社）					
Instructor		TANGE Atsuko					
Course Objectives							
1) To capture and summarize the composition and development of logical sentences (essays and critic articles) accurately. 2) Can correctly read the different points of view of people and things drawn in literary sentences (novels and essays) and to be able to express the student's own opinions. 3) To elaborate texts and reports, create sentences that devise a logical structure based on classified information. To be able to transmit information effectively.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		The students can well summarize and explain the composition of a text.		The students can summarize and explain the composition of a text.		The students can not summarize and explain the composition of a text.	
Achievement 2		The students can well capture the characters figure and subject and evaluate it critically		The students can capture the characters figure and subject and evaluate it critically		The students can not capture the characters figure and subject and evaluate it critically	
Achievement 3		The students can well form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.		The students can form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.		The students can not form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.	
Assigned Department Objectives							
Teaching Method							
Outline		To acquire basic knowledge of the Japanese language through the reading of various texts such as modern review papers, novels, poetry, and classical texts. To develop logical reading and text expression skills and make use of them linguistically, in an organized and sensitivity way.					
Style		Classes will be basically held in a lecture style, but there will be quizzes and assignments from time to time.					
Notice		To keep in mind that the Japanese language is the base of all subjects, including science subjects. The students should actively engage in the lessons without neglecting preparation and review. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning							
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced	
Course Plan							
			Theme		Goals		
2nd Semester	3rd Quarter	1st	Course guidance Reading Meaning of working		Regarding articles, read aloud correctly, to understand the text composition according to the expression style.		
		2nd	Reading Meaning of working		Regarding articles, to understand and explain the developments and arguments logically		
		3rd	Reading Meaning of working		Regarding articles, to understand and explain the developments and arguments logically		
		4th	Reading Heike monogatari		Understand the evaluation of literary history and the grammar of ancient writing, and understand the style of the work		
		5th	Reading Heike monogatari		Understand the evaluation of literary history and the grammar of ancient writing, and understand the style of the work		
		6th	Reading Heike monogatari		Understand person modeling and theme consciousness		
		7th	Reading Heike monogatari		Understand the characteristics of the scene from the basics		
		8th	Reading Heike monogatari		Capture and evaluate historical value		
	4th Quarter	9th	Reading comprehension: The world is a hamburger (Kouji Taki)		Read aloud and understand the composition		
		10th	Reading comprehension: The world is a hamburger (Kouji Taki)		Regarding articles, read aloud correctly, to understand the text composition according to the expression style.		
		11th	Reading comprehension: The world is a hamburger (Kouji Taki)		Answer textbook questions and understand the subject		
		12th	Reading Serpentine		Understand Ancient Chinese grammar and be able to read it loud correctly		
		13th	Reading Serpentineand Tang poetry		To understand Ancient Chinese grammar and be able to read it loud correctly		

		14th	Reading Tang poetry	To understand Ancient Chinese text contents correctly. To be able to appreciate and understand Ancient Chinese poetry rules.
		15th	Reading Tang poetry	To be able to appreciate and understand Ancient Chinese poetry rules and its influence in Japanese literature.
		16th	End term exams	

Evaluation Method and Weight (%)					
	Examination	Quizes	Behavior	Other	Total
Subtotal	80	10	10	0	100
Basic Proficiency	80	10	10	0	100
Specialized Proficiency	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0

Akashi College		Year	2023		Course Title	History-1
Course Information						
Course Code	5103			Course Category	General / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	First Semester			Classes per Week	2	
Textbook and/or Teaching Materials	Shisekaishi B(Yamakawa)					
Instructor	ARAKAWA Hironori					
Course Objectives						
1. Can comprehend the principal events in the world's modern history and their timelines. 2. Understand the connection between historical events and historical backgrounds. 3. Understand and can explain Japan's historical relationship with other Asian countries. 4. Can consider current world events from a historical perspective.						
Rubric						
		Ideal Level		Standard Level		Unacceptable Level
Achievement 1		Fully comprehend the principal events in the world's modern history and their timelines.		Generally comprehend the principal events in the world's modern history and their timelines.		Do not fully comprehend the principal events in the world's modern history and their timelines.
Achievement 2		Fully understand the connection between historical events and historical backgrounds.		Generally understand the connection between historical events and historical backgrounds.		Do not understand the connection between historical events and historical backgrounds.
Achievement 3		Fully understand and can explain Japan's historical relationship with other Asian countries.		Generally understand and can explain Japan's historical relationship with other Asian countries.		Do not fully understand and cannot explain Japan's historical relationship with other Asian countries.
Achievement 4		Fully understand and can consider current events in the world from a historical perspective.		Generally understand and can consider current events in the world from a historical perspective.		Do not fully understand and cannot consider current events in the world from a historical perspective.
Assigned Department Objectives						
Teaching Method						
Outline	Given that we live in a modern society, understanding modern history is absolutely imperative. The aim of this course is to understand the history of Middle East, Africa, Europe, and Asia, including Japan, in the 19th and 20th centuries, and clarify the history of current events in the world.					
Style	Classes will be carried out using materials such as videos, and historical sources. Handouts, etc. will be distributed as needed, but students should have their textbooks and notebooks ready for each class. Students are expected to self-study, and independently think and learn from history.					
Notice	Students who miss 1/3 or more of classes will not be eligible for evaluation.					
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	Imperialism		Can explain imperialism.	
		2nd	European colonization during and after the Middle Ages		Comprehensively understand European colonization, including geographic facts, during and after the Middle Ages.	
		3rd	The Scramble for Africa		Can explain the Scramble for Africa, the Fashoda Incident, and their impact. Can explain the South African War, and its historical significance.	
		4th	The Opium Wars, the Arrow War		Can explain the Opium Wars, the Arrow War, and their impact.	
		5th	The Taiping Rebellion and the Self-Strengthening Movement		Can explain the Taiping Rebellion, the Self-Strengthening Movement, and their impact.	
		6th	The Sino-Japanese War / The Hundred Days of Reform		Can explain the Hundred Days of Reform, the Sino-Japanese War, and their impact.	
		7th	The Russo-Japanese War and the Xinhai Revolution		Can explain the North China Incident, the Russo-Japanese War, and the Xinhai Revolution, and their impact.	
		8th	Applying for the "JICA Essay Contest on International Cooperation for Junior and Senior High School Students" (Midterm grades are assessed by essays/forms/notes. Library Tour		Can explain international cooperation by government organizations. Can borrow books and documents from the College Library.	
	2nd Quarter	9th	The Franco-German War / German Unification / Bismarck's Foreign Policy		Can explain the process of German Unification and its impact.	
		10th	The Triple Alliance and Triple Entente		Can explain the Triple Alliance, Triple Entente and their impact.	
		11th	Balkan Peninsula / Ethnic Mosaic		Can explain the Sarajevo Incident and its historical significance.	

		12th	World War I / intentions of great powers and nationalism	Can explain World War I and its historical significance.
		13th	The May Fourth Movement / First United Front	Can explain the May Fourth Movement, the First United Front, and their impact.
		14th	The Manchurian Incident / the Xi'an Incident	Can explain the Northern Expedition, foundation of Manchukuo, Long March, and the Xi'an Incident, and their impact.
		15th	What can engineers do for international development / Preparing for the essay contest	Understand and can explain matters related to international relationships, and the current state of international development, such as JICA.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Submissions	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	70	0	5	5	0	0	80
Basic Proficiency	70	0	5	5	0	0	80
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College		Year	2023		Course Title	History-2
Course Information						
Course Code	5104			Course Category	General / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	Second Semester			Classes per Week	2	
Textbook and/or Teaching Materials	Shisekaishi B(Yamakawa)					
Instructor	ARAKAWA Hironori					
Course Objectives						
1. Can comprehend the principal events in the world's modern history and their timelines. 2. Understand the connection between historical events and historical backgrounds. 3. Understand and can explain Japan's historical relationship with other Asian countries. 4. Can consider current world events from a historical perspective.						
Rubric						
	Ideal Level			Standard Level		Unacceptable Level
Achievement 1	Fully comprehend the principal events in the world's modern history and their timelines.			Generally comprehend the principal events in the world's modern history and their timelines.		Do not fully comprehend the principal events in the world's modern history and their timelines.
Achievement 2	Fully understand the connection between historical events and historical backgrounds.			Generally understand the connection between historical events and historical backgrounds.		Do not understand the connection between historical events and historical backgrounds.
Achievement 3	Fully understand and can explain Japan's historical relationship with other Asian countries.			Generally understand and can explain Japan's historical relationship with other Asian countries.		Do not fully understand and cannot explain Japan's historical relationship with other Asian countries.
Achievement 4	Fully understand and can consider current events in the world from a historical perspective.			Generally understand and can consider current events in the world from a historical perspective.		Do not fully understand and cannot consider current events in the world from a historical perspective.
Assigned Department Objectives						
Teaching Method						
Outline	Given that we live in a modern society, understanding modern history is absolutely imperative. The aim of this course is to understand the history of Middle East, Africa, Europe, and Asia, including Japan, in the 19th and 20th centuries, and clarify the history of current events in the world.					
Style	Classes will be carried out using materials such as videos, and historical sources. Handouts, etc. will be distributed as needed, but students should have their textbooks and notebooks ready for each class. Students are expected to self-study, and independently think and learn from history.					
Notice	Students who miss 1/3 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning						
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced
Course Plan						
			Theme	Goals		
2nd Semester	3rd Quarter	1st	The fall of the Mughal Empire and the colonization of India	Can explain the process of the development of the Mughal Empire.		
		2nd	The formation of the Indian National Congress / The emergence of Gandhi	Can explain the Indian Rebellion of 1857, Gandhi, and their impact.		
		3rd	The Salt March to Partition of India	Can explain Gandhi's movement and the conflict between India and Pakistan since colonial times.		
		4th	Reforms of Russia since the 19th century	Can explain the governing system of Russia before the Russian Revolution.		
		5th	The Russian Revolution	Can explain the March Revolution and November Revolution, and their historical significance.		
		6th	Versailles System and Washington System	Can explain the Versailles System, Washington System, and the League of Nations, and their historical significance.		
		7th	America's prosperity / Roaring Twenties	Can explain the Policies of the US during the 1920s.		
		8th	Pax Americana	Can explain the Pax Americana.		
	4th Quarter	9th	The Great Depression / Bloc economy	Can explain the process of how the Great Depression spread, and its impact.		
		10th	The establishment of Nazi Germany	Can explain the process of how the Nazi were created and why Germany accepted them.		
		11th	World War II	Can explain the Invasion of Poland, World War II and their impact.		
		12th	The Cold War	Can explain the Berlin Blockade, Cuban Missile Crisis, and their historical significance.		
		13th	The establishment and breakthrough of the People's Republic of China	Can explain the events of 1949, the Sino-Soviet split, and their impact.		

		14th	Cultural Revolution / Chinese economic reform	Can explain the Great Leap Forward, Cultural Revolution, Chinese economic reform, Handover of Hong Kong, and their impact.
		15th	Modern history of the Korean Peninsula / Preparing for a study tour	Can explain the modern history of the Korean Peninsula.
		16th	Final exam	

Evaluation Method and Weight (%)							
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	Examination	Submissions	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	70	0	5	5	0	0	80
Basic Proficiency	70	0	5	5	0	0	80
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College		Year	2023		Course Title	Mathematics I A-1	
Course Information							
Course Code		5105		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 2	
Department		Mechanical Engineering		Student Grade		1st	
Term		First Semester		Classes per Week		4	
Textbook and/or Teaching Materials		Fundamental Mathematics (Dai Nihon Tosho)					
Instructor		TAKATA Isao					
Course Objectives							
1) To understand numbers and equations, and be able to calculate them. 2) To understand Equation and inequality, and be able to solve them. 3) To understand and functions and graphs, and be able to use them.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
1) Numbers and equations		Can understand numbers and equations, and be able to calculate them.		Can understand numbers and equations.		Can not understand numbers and equations.	
2) Equation and inequality		Can understand Equation and inequality, and be able to solve them.		Can understand Equation and inequality.		Can not understand Equation and inequality.	
3)Functions and graphs		Can understand and functions and graphs, and be able to use them.		Can understand and functions and graphs.		Can nt understand and functions and graphs.	
Assigned Department Objectives							
Teaching Method							
Outline		The objective is to develop basic mathematical formulas and logical thinking skills and acquire the fundamentals of mathematics necessary in college.					
Style		Students are asked to prepare for the class with video clips according to the syllabus. Students will be asked to study in groups during class to check their level of understanding. Bilingual classes may be offered.					
Notice		Review your work before class. Do not leave anything you do not understand unanswered, but ask questions. Study independently by using problem collections. CBT will be given in one of the weeks. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
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	Numbers and equations		Class Preparation. Also, can calculate addition, subtraction, and multiplication of integer expressions.		
		2nd	Numbers and equations		Can use exponential laws and expansion formulas. Also, can perform simple factorizations.		
		3rd	Numbers and equations		Can compute divisors of integers. Also, can factor higher order polynomials using the factor theorem.		
		4th	Numbers and equations		Can divide fractional expressions. Also, can calculate addition, multiplication, and division of fractional expressions.		
		5th	Numbers and equations		Can understand the meaning of real and absolute numbers. Also, can understand the phases of complex numbers and compute their addition, subtraction, multiplication, and division.		
		6th	Equations and inequalities		Can understand the correspondence between complex numbers and the complex plane. Also, can solve quadratic equations by using solution formulas.		
		7th	Equations and inequalities		The CBT test will be used to check for retention. Also, can understand the relationship between solutions and coefficients and can factor any quadratic equation.		
		8th	Equations and inequalities		Can solve linear equations. Also, can solve fractional equations and irrational equations.		
	2nd Quarter	9th	Equations and inequalities		Can understand identities and partial fractional decomposition. Also, can prove various equations.		
		10th	Equations and inequalities		Can solve first order inequalities. Also, can solve quadratic inequalities.		
		11th	Equations and inequalities		Can prove inequalities. Also, can understand sets and compute sets.		
		12th	Equations and inequalities		Can determine the number of sets. Also, can determine the truth or falsity of a proposition.		

		13th	Functions and graphs	Can state the inverse, reverse, and contrapositive of a proposition. Also, can draw graphs of quadratic functions.
		14th	Functions and graphs	The CBT test will be used to check for retention. Also, can find quadratic functions.
		15th	Functions and graphs	Review of the total. Also, can understand the relationship between quadratic functions and quadratic inequalities.
		16th	Exam	Confirmation of the studies.

Evaluation Method and Weight (%)

	Examination	Comprehension Test	Review Test	Assignments	Attendance points	Total
Subtotal	25	20	25	15	15	100
Basic Proficiency	25	20	25	15	15	100
Specialized Proficiency	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0

Akashi College		Year	2023	Course Title	Mathematics I A-2
Course Information					
Course Code	5106		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 2	
Department	Mechanical Engineering		Student Grade	1st	
Term	Second Semester		Classes per Week	4	
Textbook and/or Teaching Materials	Fundamental Mathematics (Dai Nihon Toshō)				
Instructor	TAKATA Isao				
Course Objectives					
1) To understand and functions and graphs, and be able to use them. 2) To understand exponential and logarithmic functions, and be able to use them. 3) To understand the principles of the number of possible outcomes and probability, and be able to calculate them.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can understand and functions and graphs, and be able to use them.		Can understand and functions and graphs.		Can not understand and functions and graphs.
Achievement 2	Can understand exponential and logarithmic functions, and be able to use them.		Can understand exponential and logarithmic functions.		Can not understand exponential and logarithmic functions.
Achievement 3	Can understand the principles of the number of possible outcomes and probability, and be able to calculate them.		Can understand the principles of the number of possible outcomes and probability.		Can not understand the principles of the number of possible outcomes and probability.
Assigned Department Objectives					
Teaching Method					
Outline	The objective is to develop basic mathematical formulas and logical thinking skills and acquire the fundamentals of mathematics necessary in college.				
Style	Students are asked to prepare for the class with video clips according to the syllabus. Students will be asked to study in groups during class to check their level of understanding. Bilingual classes may be offered.				
Notice	Review your work before class. Do not leave anything you do not understand unanswered, but ask questions. Study independently by using problem collections. CBT will be given in one of the weeks. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester	3rd Quarter	1st	Functions and graphs	Answers to the first semester final exam and a summer homework test will be given. Also, can understand the relationship between quadratic functions and quadratic inequalities.	
		2nd	Functions and graphs	Can move graphs symmetrically and scale them. Also, can draw graphs of power functions and distinguish between even and odd functions.	
		3rd	Functions and graphs	Can draw graphs of fractional functions. Also, can solve inequalities using graphs of fractional functions.	
		4th	Functions and graphs	Can draw graphs of irrational functions. Also, can draw graphs of inverse functions.	
		5th	Exponential and logarithmic functions	Can find the power roots. In addition, a CBT test will be administered to check for learning retention.	
		6th	Exponential and logarithmic functions	Can understand the extension of the exponential law. Also, can draw graphs of exponential functions.	
		7th	Exponential and logarithmic functions	Can solve equations and inequalities for exponential functions. Also can understand logarithms and can perform simple calculations.	
		8th	Exponential and logarithmic functions	Can use the transformation formulas for the base. Also, can draw graphs of logarithmic functions.	
	4th Quarter	9th	Exponential and logarithmic functions	Can solve equations and inequalities of logarithmic functions. Also, can use ordinary logarithms.	
		10th	Number of cases	Can understand the law of product and the law of sums, and can find simple cases. Also, a CBT test will be given to check the level of retention of learning.	
		11th	Number of cases	Can find the values of various permutations.	

		12th	Number of cases	Can obtain the circular permutations. Also, can obtain simple combinations.
		13th	Number of cases	Can obtain the various combinations. Also, can obtain overlapping permutations.
		14th	Number of cases	Can understand and use the binomial theorem. Also, CBT (Headquarters) will be conducted.
		15th	Basics of probability	Can compute simple probabilities. Also can understand and calculate conditional probabilities.
		16th	Exam	Confirmation of the studies

Evaluation Method and Weight (%)						
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	Examination	Comprehension Test	Review Teat	Assignments	Attendance points	Total
Subtotal	25	20	25	15	15	100
Basic Proficiency	25	20	25	15	15	100
Specialized Proficiency	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0

Akashi College		Year	2023		Course Title	Mathematics I B-1	
Course Information							
Course Code	5107			Course Category	General / Compulsory		
Class Format	Lecture			Credits	School Credit: 1		
Department	Mechanical Engineering			Student Grade	1st		
Term	First Semester			Classes per Week	2		
Textbook and/or Teaching Materials	高遠他:「新 基礎数学」大日本図書高遠他:「新 基礎数学 問題集」大日本図書						
Instructor	OMODA Yasuhiro						
Course Objectives							
To understand and solve problems related to trigonometric functions, figures, equations, and sequences.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
1)Trigonometric functions		Can fully understand the definition of trigonometric function and competently solve problems using trigonometric functions.		Can understand the definition of trigonometric function and solve problems using trigonometric functions.		Can not understand the definition of trigonometric function or solve problems using trigonometric functions.	
Assigned Department Objectives							
Teaching Method							
Outline	To learn about trigonometric functions. Learn the fundamentals of mathematics required in college.						
Style	Lecture with problem-solving.						
Notice	Preparation and review of the content learned are indispensable. 7 absences will be excused.						
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	Triangle ratio and its application		Can calculate the triangle ratio.		
		2nd	Triangle ratio and its application		Can calculate the obtuse angle trigonometric ratio.		
		3rd	Triangle ratio and its application		Can solve triangle problem using the sine theorem.		
		4th	Triangle ratio and its application		Can solve triangle problem using the cosine theorem.		
		5th	Summary				
		6th	Trigonometric function		Can calculate the value of an angle using the trigonometric functions.Can express angles using the arc method.		
		7th	Trigonometric function		Can explain the interrelationship and nature of trigonometric functions.		
		8th	Trigonometric function		Can draw the graph of a trigonometric function.		
	2nd Quarter	9th	Trigonometric function		Can solve the triangular equation and triangular inequality.		
		10th	Summary		Can solve problems related to the content learned.		
		11th	Additive theorem and its application		Can calculate trigonometric ratio using the additive theorem.		
		12th	Additive theorem and its application		Can derive the formula of the sum of products, etc. And do calculations using them.		
		13th	Additive theorem and its application		Can synthesize trigonometric functions.		
		14th	Additive theorem and its application		Can solve problems related to the content learned.		
		15th	Summary		Can solve problems related to the content learned.		
		16th	none				
Evaluation Method and Weight (%)							
	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	40	30	0	30	0	0	100
Basic Proficiency	40	30	0	30	0	0	100
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College		Year	2023		Course Title	Mathematics I B-2	
Course Information							
Course Code	5108			Course Category	General / Compulsory		
Class Format	Lecture			Credits	School Credit: 1		
Department	Mechanical Engineering			Student Grade	1st		
Term	Second Semester			Classes per Week	2		
Textbook and/or Teaching Materials	高遠他:「新 基礎数学」大日本図書高遠他:「新 基礎数学 問題集」大日本図書						
Instructor	OMODA Yasuhiro						
Course Objectives							
To understand and solve problems related to trigonometric functions, figures, equations, and sequences.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
1)Equations and graphs		Can fully understand the relationship between equations and graphs, and solve problems related to straight lines and quadratic curves.		Can sufficiently understand the relationship between equations and graphs, and solve problems related to straight lines and quadratic curves.		Can not understand the relationship between equations and graphs, or solve problems related to straight lines and quadratic curves.	
2)sequences		Can fully understand and sum the general term of a sequence.		Can understand and sum the general term of a sequence.		Can not understand and sum the general term of a sequence.	
Assigned Department Objectives							
Teaching Method							
Outline	To learn about trigonometric functions, figures and their equations, and sequences. Learn the fundamentals of mathematics required in college.						
Style	Lecture with problem-solving.						
Notice	Preparation and review of the content learned are indispensable. 7 absences will be excused.						
Characteristics of Class / Division in Learning							
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced	
Course Plan							
2nd Semester r	3rd Quarter		Theme		Goals		
		1st	Point and Straight line		Can calculate the centroid of a triangle, and the Interior division point.		
		2nd	Point and Straight line		Can calculate the line equation.		
		3rd	Point and Straight line		Can calculate linear equations satisfying the conditions of parallel or Vertical lines.		
		4th	Summary		Can solve problems related to the content learned.		
		5th	Quadratic curve circle		Can solve the circle equation.		
		6th	Quadratic curve circle		Can solve the ellipse equation and calculate the approximate shape.		
		7th	Quadratic curve circle		Can solve the parabolic equation and calculate the approximate shape, and the hyperbolic curve.		
	8th	Quadratic curve circle		Can calculate tangent of a quadratic curve.			
	4th Quarter	9th	Quadratic curve circle		Can show the area represented by inequality (Coalition).		
		10th	Summary		Can solve problems related to the content learned.		
		11th	Sequence		Can calculate the general term of an arithmetic progression.		
		12th	Sequence		Can calculate the general term of an arithmetic progression.		
		13th	Sequence		Can calculate the sum of various sequences.		
		14th	Sequence		Can calculate the general term of the recurrence formula and can prove it using mathematical induction.		
		15th	Summary		Can solve problems related to the content learned.		
16th		none					
Evaluation Method and Weight (%)							
	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	40	30	0	30	0	0	100
Basic Proficiency	40	30	0	30	0	0	100

Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College		Year	2023	Course Title	Science I -1
Course Information					
Course Code	5109		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials	総合物理 1 -力と運動・熱- (数研出版) , 新課程 リードα 物理基礎・物理 (数研出版)				
Instructor	TAKEUCHI Masahiro				
Course Objectives					
1. Understand the concept of significant figures and units, and handle them appropriately. 2. Understand the concept of vector and component, and use them properly. 3. Understand the concept of the dynamics of the physical quantity, and be able to explain those concepts and perform basic calculations.					
Rubric					
	Excellent		Good		Insufficient
Achievement 1	Understand the concept of significant figures and units, and handle them appropriately.		Can handle significant figures and units appropriately.		Doesn't understand the concept of significant figures and units, and can't handle them appropriately.
Achievement 2	Understand the concept of vector and component, and use them properly.		Can use vector and component properly.		Doesn't understand and can't use vector and component.
Achievement 3	Understand the concept of the dynamics of the physical quantity, and be able to explain those concepts and perform basic calculations.		Understand the concept of the dynamics of the physical quantity.		Doesn't understand the concept of the dynamics of the physical quantity.
Assigned Department Objectives					
Teaching Method					
Outline	Learn physics dynamics which is the basis of engineering. The study of dynamics is divided into four topics. In the first year, the students will learn until constant velocity circular motion (middle of dynamics topic 4). The students are required to acquire a tremendous amount of knowledge out a difficult topic, to be perseverant and don't give up. Dynamics 1: To understand the vector concept. The contents used here are speed and acceleration, topics learned at junior high school. To explain the components of a vector is necessary to understand the trigonometric functions. Also, will be guided to handle significant figures and units. The students will learn how to study by themselves through daily tasks, such as self-learning, doing assignments (task preparation research notes), etc. Dynamics 2: to understand the relation between cause and consequence in physical phenomena. For example, acceleration (learned in dynamics 1) is the result, caused by the exercise of a force and influenced by mass. The students will learn more about movements equations in dynamics 4. Dynamics 3: to understand torque which is a quantitative concept of lever principle. Next, the students will study energy conservation law and momentum conservation law. Here, by conducting a total review of physical quantities learned so far, the students will be prepared to comprehend dynamics 4. The students must pay attention to the differences in power and energy, that are easily confused. Dynamics 4: To understand constant velocity circular motion through the study of two-dimensional. As an application, the students will use simple vibration as an instrument to learn about sound and light waves. Furthermore, through the study of the law of universal gravitational attraction by Newton, the students will become aware of all the dynamic phenomena, represented by the equation of motion. To make the students perceive that if they can write the equations, they can solve it.				
Style	During each lesson (90 minutes) in the first half the teacher will explain the contents from in the textbook, and in the second half the students will participate in group-specific activities and solve problems together from the textbook. The students are required to read the textbooks in advance, to make team activities smooth and meaningful. Also, to acquire problem-solving and presentation style, we recommend the use of the support web page and videos. In the future, physical reversal classes will be abolished, so the students should focus on preparation for the classes from the beginning. Assignment: The students have to make and submit their "problem research note." The note contains explanations of the background and essence of each problem and not be used as a tool to show how much the student had studied. It also should include long-term vacations periods of study time. Test: The test problems are from high school physics book (the style of the problem is preserved, numbers and way of solving are changed), to avoid difference of interpretation between students and teacher, original questions elaborated by the teacher are not used. In resume, this course is centered on the problems from the textbook, in addition to other learning materials as the videos and the web page task, etc. The students should understand the textbook from corner to corner, as a third-party external evaluation system. In addition to the teachers' commentary, extra handouts may be distributed as a reference. I can solve Ichi's problems! This fact and feeling will give confidence to the students in other activities inside and outside the campus.				
Notice	Evaluation points: For specific calculation methods: https://sites.google.com/s.akashi.ac.jp/physics/ Re-examination: No retesting 5 absences will be excused. In junior high school, students think about something from zero. Learners who do not stand on the shoulder of the giants, are not only inefficient but also blaspheme. In the learning of physics, images from comics and animation may lead to erroneous concepts (simple concept) and sometimes interfere with correct understanding of physical phenomena. By acquiring the "style" of thinking developed by predecessor physics, you will become a sophisticated technician who is not misled by misconceptions and pseudoscience!				
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	Calculate sum difference of vector components (p6 - p13)	Can explain textbook's problems 2,3,4.
		2nd	Vector subtraction and relative velocity (p14 - p18)	Can explain textbook's problems 5,7,8.
		3rd	3 equations of equal acceleration linear motion and it's exercises (p19 - p25)	Can explain textbook's problems 11,12,13.
		4th	Gravity acceleration measurement experiment (experiment hand out)	Execute the experiment safely and submit the assignment in time.
		5th	Powers and significant figures (p241-p244)	Can explain textbook's problems 21,22, 23
		6th	Falling body motion and horizontal projection (p31-p36)	Can explain textbook's problems 27, 28, 29
		7th	Oblique projection (p37-p41)	Can explain textbook's problems 30, 31, 32
		8th	Mid term exams	Correctly answer more than 80 % of the test.
	2nd Quarter	9th	How to calculate the force and force vector(p44-p49)	Can explain textbook's problems 40, 41, 44, 45
		10th	Force balance and Force action / reaction (p50-p55)	Can explain textbook's problems 40,41, 46, 47,49
		11th	Equation of motion (p61-p70)	Can explain textbook's problems 56,58,59,60
		12th	Friction force (p71-p74)	Can explain textbook's problems 64,65,66
		13th	Atmospheric pressure and water pressure (p75-p77)	Can explain textbook's problems 68, 69
		14th	Buoyancy and air resistance (p78-p80)	Can explain textbook's problems 70,71
		15th	Exercises	Can explain textbook's problems 67,61,62
		16th	End term exams	Correctly answer more than 80 % of the test.

Evaluation Method and Weight (%)

	Examination	Non-test evaluation	Total
Subtotal	40	60	100
Basic Proficiency	40	60	100
Specialized Proficiency	0	0	0
Cross Area Proficiency	0	0	0

Akashi College		Year	2023	Course Title	Science I -2
Course Information					
Course Code	5110		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials	國友正和ほか著 総合物理 1 -力と運動・熱- (数研出版)数研出版編集部編 リードα 物理基礎・物理 (数研出版)				
Instructor	TAKEUCHI Masahiro				
Course Objectives					
1. Understand the concept of significant figures and units, and handle them appropriately. 2. Understand the concept of vector and component, and use them properly. 3. Understand the concept of the dynamics of the physical quantity, and be able to explain those concepts and perform basic calculations.					
Rubric					
	Excellent		Good		Insufficient
Achievement 1	Understand the concept of significant figures and units, and handle them appropriately.		Can handle significant figures and units appropriately.		Doesn't understand the concept of significant figures and units, and can't handle them appropriately.
Achievement 2	Understand the concept of vector and component, and use them properly.		Can use vector and component properly.		Doesn't understand and can't use vector and component.
Achievement 3	Understand the concept of the dynamics of the physical quantity, and be able to explain those concepts and perform basic calculations.		Understand the concept of the dynamics of the physical quantity.		Doesn't understand the concept of the dynamics of the physical quantity.
Assigned Department Objectives					
Teaching Method					
Outline	Learn physics dynamics which is the basis of engineering. The study of dynamics is divided into four topics. In the first year, the students will learn until constant velocity circular motion (middle of dynamics topic 4). The students are required to acquire a tremendous amount of knowledge out a difficult topic, to be perseverant and don't give up. Dynamics 1: To understand the vector concept. The contents used here are speed and acceleration, topics learned at junior high school. To explain the components of a vector is necessary to understand the trigonometric functions. Also, will be guided to handle significant figures and units. The students will learn how to study by themselves through daily tasks, such as self-learning, doing assignments (task preparation research notes), etc. Dynamics 2: to understand the relation between cause and consequence in physical phenomena. For example, acceleration (learned in dynamics 1) is the result, caused by the exercise of a force and influenced by mass. The students will learn more about movements equations in dynamics 4. Dynamics 3: to understand torque which is a quantitative concept of lever principle. Next, the students will study energy conservation law and momentum conservation law. Here, by conducting a total review of physical quantities learned so far, the students will be prepared to comprehend dynamics 4. The students must pay attention to the differences in power and energy, that are easily confused. Dynamics 4: To understand constant velocity circular motion through the study of two-dimensional. As an application, the students will use simple vibration as an instrument to learn about sound and light waves. Furthermore, through the study of the law of universal gravitational attraction by Newton, the students will become aware of all the dynamic phenomena, represented by the equation of motion. To make the students perceive that if they can write the equations, they can solve it.				
Style	During each lesson (90 minutes) in the first half the teacher will explain the contents from in the textbook, and in the second half the students will participate in group-specific activities and solve problems together from the textbook. The students are required to read the textbooks in advance, to make team activities smooth and meaningful. Also, to acquire problem-solving and presentation style, we recommend the use of the support web page and videos. In the future, physical reversal classes will be abolished, so the students should focus on preparation for the classes from the beginning. Assignment: The students have to make and submit their "problem research note." The note contains explanations of the background and essence of each problem and not be used as a tool to show how much the student had studied. It also should include long-term vacations periods of study time. Test: The test problems are from high school physics book (the style of the problem is preserved, numbers and way of solving are changed), to avoid difference of interpretation between students and teacher, original questions elaborated by the teacher are not used. In resume, this course is centered on the problems from the textbook, in addition to other learning materials as the videos and the web page task, etc. The students should understand the textbook from corner to corner, as a third-party external evaluation system. In addition to the teachers' commentary, extra handouts may be distributed as a reference. I can solve Ichi's problems! This fact and feeling will give confidence to the students in other activities inside and outside the campus.				
Notice	Evaluation points: For specific calculation methods: https://sites.google.com/s.akashi.ac.jp/physics/ Re-examination: No retesting 5 absences will be excused. In junior high school, students think about something from zero. Learners who do not stand on the shoulder of the giants, are not only inefficient but also blaspheme. In the learning of physics, images from comics and animation may lead to erroneous concepts (simple concept) and sometimes interfere with correct understanding of physical phenomena. By acquiring the "style" of thinking developed by predecessor physics, you will become a sophisticated technician who is not misled by misconceptions and pseudoscience!				
Characteristics of Class / Division in Learning					
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class ☐ Instructor Professionally Experienced	
Course Plan					
			Theme	Goals	

2nd Semester r	3rd Quarter	1st	Assignment test and force moment (p81-p85)	Can explain textbook's problems 80,81,82
		2nd	Combined force and center of gravity acting on a rigid body (p86-p89)	Can explain textbook's problems 83,84,85, 86
		3rd	Rigid body tilt and fall (p90-p93)	Can explain textbook's problems 87,88,89
		4th	Work and power (p94-p99)	Can explain textbook's problems 94, 95, 96, 97
		5th	Kinetic energy and potential (p100-p106)	Can explain textbook's problems 100, 101, 102, 103
		6th	Preservation of mechanical energy (p107-p112)	Can explain textbook's problems 104,105
		7th	Exercises	Can explain textbook's problems 106,107
		8th	Mid term exams	Correctly answer more than 80 % of the test.
	4th Quarter	9th	Momentum conservation law (p118-p123)	Can explain textbook's problems 114,116,117
		10th	Collision on the plane and coefficient of restitution (p124-p132)	Can explain textbook's problems 120, 121, 122
		11th	Collision energy (p133-p134)	Can explain textbook's problems 123,124, 125
		12th	Constant velocity circular motion (p136-p141)	To explain in order the six formulas and the textbook's problems 131, 132, 133, 134
		13th	Inertial force (p142-p145)	Can explain textbook's problems 139, 137, 138
		14th	Centrifugal force (p146-p150)	Can explain textbook's problems 139, 140, 141
		15th	Exercises	Can explain textbook's problems 142, 143, 135
		16th	End term exams	Correctly answer more than 80 % of the test.
Evaluation Method and Weight (%)				
		Examination	other	Total
Subtotal		40	60	100
Basic Proficiency		40	60	100

Akashi College		Year	2023	Course Title	Physical Education I-1
Course Information					
Course Code	5111		Course Category	General / Compulsory	
Class Format	講義・実技		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	GOTOH Takayuki, KOBAYASHI Yuki				
Course Objectives					
- Participate in classes to improve students' own health and physical strength. Also, have some level of self-discipline. - Can take action to conduct sports safely. Also, recognizes the significance of collaborating and cooperating with the team and can take the necessary action to do so.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Actively participate in classes to improve their health and physical strength. Have a high level of self-discipline.		Participate in classes to improve their health and physical strength. Have some level of self-discipline.		Reluctant to participate in classes, or improve their own health and physical strength. Do not have a high level of self-discipline.
Achievement 2	Actively participate in various sport practices and games, and are very competitive. Also have a great influence on games, etc.		Can actively participate in various sport practices and games. And also have the skills for them.		Do not participate in various sport practices and games.
Achievement 3	Understand the role of a leader well, and can help increase teamwork.		Understand and can play or take on the role of a leader.		Do not understand the role of a leader. Also, never play that role.
Assigned Department Objectives					
Teaching Method					
Outline	The goal of this course is for students to learn more about the fun and depth of sports so that they can build the habit of playing sports on a daily basis. This class requires an active and proactive attitude to participate. Students will split into groups and leaders will take the lead to plan, review, and implement the course content. Students can choose from: Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis				
Style	Students are encouraged to actively participate in games and practice and to discover the fun of sports. First, they should learn the rules and how to play games, etc., and try to learn basic skills. In addition, they are expected to develop more advanced technologies and improve teamwork through games and game-style practice. Students and instructors should work together to create a safe and welcoming class.				
Notice	- Wear school-designated training wear, athletic shoes, or other designated clothing. If students fail to wear them, points will be deducted from their grade. - Do not wear or bring accessories, watches, or any other unnecessary items. These are also eligible for grade deduction. - Tardiness will be excused for the first 20 minutes. Students can participate in the class after 20 minutes, but their attendance will be marked as absent. - If it is discovered that a student left class early without being excused (ditching class), their attendance for that class will be marked as absent, and their grade for previous classes will suffer a deduction equal to an absence. - Students who miss 1/4 or more of classes will not be eligible for evaluation.				
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	Guidance	Understand the purposes and objectives of this course. Reacknowledge that warm-ups are necessary to safely exercise.	
		2nd	Guidance	Understand the purposes and objectives of this course. Reacknowledge that warm-ups are necessary to safely exercise.	
		3rd	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		4th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		5th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		6th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		7th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		8th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		2nd Quarter	9th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Split into teams in each sport and select a leader.

		10th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		11th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		12th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		13th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		14th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		15th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		16th	No final exam	

Evaluation Method and Weight (%)

	Approach to a class	Practical skill	Leadership	Total
Subtotal	75	15	10	100
Basic Proficiency	75	0	0	75
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	15	10	25

Akashi College		Year	2023	Course Title	Physical Education I-2
Course Information					
Course Code	5112		Course Category	General / Compulsory	
Class Format	講義・実技		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	GOTOH Takayuki,ISHIDA Masami				
Course Objectives					
- Participate in classes to improve students' own health and physical strength. Also, have some level of self-discipline. - Can take action to conduct sports safely. Also, recognizes the significance of collaborating and cooperating with the team and can take the necessary action to do so.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Actively participate in classes to improve their health and physical strength. Have a high level of self-discipline.		Participate in classes to improve their health and physical strength. Have some level of self-discipline.		Reluctant to participate in classes, or improve their own health and physical strength. Do not have a high level of self-discipline.
Achievement 2	Actively participate in various sport practices and games, and are very competitive. Also have a great influence on games, etc.		Can actively participate in various sport practices and games. And also have the skills for them.		Do not participate in various sport practices and games.
Achievement 3	Understand the role of a leader well, and can help increase teamwork.		Understand and can play or take on the role of a leader.		Do not understand the role of a leader. Also, never play that role.
Assigned Department Objectives					
Teaching Method					
Outline	The goal of this course is for students to learn more about the fun and depth of sports so that they can build the habit of playing sports on a daily basis. This class requires an active and proactive attitude to participate. Students will split into groups and leaders will take the lead to plan, review, and implement the course content. Students can choose from: Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis				
Style	Students are encouraged to actively participate in games and practice and to discover the fun of sports. First, they should learn the rules and how to play games, etc., and try to learn basic skills. In addition, they are expected to develop more advanced technologies and improve teamwork through games and game-style practice. Students and instructors should work together to create a safe and welcoming class.				
Notice	- Wear school-designated training wear, athletic shoes, or other designated clothing. If students fail to wear them, points will be deducted from their grade. - Do not wear or bring accessories, watches, or any other unnecessary items. These are also eligible for grade deduction. - Tardiness will be excused for the first 20 minutes. Students can participate in the class after 20 minutes, but their attendance will be marked as absent. - If it is discovered that a student left class early without being excused (ditching class), their attendance for that class will be marked as absent, and their grade for previous classes will suffer a deduction equal to an absence. - Students who miss 1/4 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☒ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class ☐ Instructor Professionally Experienced	
Course Plan					
			Theme	Goals	
2nd Semester	3rd Quarter	1st	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Split into teams in each sport and select a leader.	
		2nd	Health (joint class with Hyogo University Department of Nursing)	Reflect on their own health and take the opportunity to reconsider their future lifestyles.	
		3rd	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		4th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		5th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		6th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		7th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		8th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
	4th Quarter	9th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Split into teams in each sport and select a leader.	
		10th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	

	11th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	12th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	13th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	14th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	15th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	16th	No final exam	

Evaluation Method and Weight (%)				
	Approach to a class	Practical skill	Leadership	Total
Subtotal	75	15	10	100
Basic Proficiency	75	0	0	75
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	15	10	25

Akashi College		Year	2023		Course Title	English I A-1
Course Information						
Course Code	5113			Course Category	General / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	First Semester			Classes per Week	2	
Textbook and/or Teaching Materials	New Rays English Communication I / New Rays WORKBOOK					
Instructor	AKIMOTO Hiromi					
Course Objectives						
1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately. 2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines. 3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines. 4) Can read sentences written in English, understand the text outline, read and extract necessary information. 5) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.	
Achievement 2	The student has well learned to use grammar rules appropriately, according to the high school study guidelines.		The student has learned to use grammar rules appropriately, according to the high school study guidelines.		The student has not learned to use grammar rules appropriately, according to the high school study guidelines.	
Achievement 3	The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	
Achievement 4	The student can well read sentences written in English, understand the text outline, read and extract necessary information.		The student can read sentences written in English, understand the text outline, read and extract necessary information.		The student can not read sentences written in English, understand the text outline, read and extract necessary information.	
Achievement 5	The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	
Assigned Department Objectives						
Teaching Method						
Outline	Based on the junior high school learned content, to understand the basic structure of English sentences and acquire reading skills. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.					
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook. Handout will be provided in the first week. Go over the handout and understand it in detail.					
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning						
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced
Course Plan						
			Theme	Goals		
1st Semester r	1st Quarter	1st	Course guidance (Course progress method, learning method, etc.)	Understand course content and assignments.		
		2nd	Chapter 1 Part 1/2	Based on the content learned in junior high school understand English language basic structure.		
		3rd	Chapter 1 Part 2/3	Based on the content learned in junior high school understand English language basic structure.		
		4th	Chapter 1 Part 4 Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.		
		5th	Chapter 2 Part 1/2	Based on the content learned in junior high school understand English language basic structure.		
		6th	Chapter 2 Part 2/3	Based on the content learned in junior high school understand English language basic structure.		
		7th	Chapter 2 Part 4 Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.		
		8th	Chapter 3 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.		

	2nd Quarter	9th	Chapter 3 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.
		10th	Chapter 3 Part 4 Language and Culture Workshop	Learn the vocabulary and grammar rules set as lesson tasks.
		11th	Chapter 4 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		12th	Chapter 4 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.
		13th	Chapter 4 Part 4	Learn the vocabulary and grammar rules set as lesson tasks.
		14th	Review	Understanding the weak points on the content learned so far and preparing for the exam.
		15th	Q & A	Understanding the weak points on the content learned so far and preparing for the exam.
		16th	Final exam	Test the student understanding of the content learned so far.

Evaluation Method and Weight (%)

	Examination	Assignments	Quizes	Behavior	Portfolio	Other	Total
Subtotal	50	10	40	0	0	0	100
Basic Proficiency	0	10	40	0	0	0	50
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	50	0	0	0	0	0	50

Akashi College		Year	2023		Course Title	English I A-2
Course Information						
Course Code	5114			Course Category	General / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	Second Semester			Classes per Week	2	
Textbook and/or Teaching Materials	New Rays English Communication I / New Rays WORKBOOK					
Instructor	AKIMOTO Hiromi					
Course Objectives						
1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately. 2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines. 3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines. 4) Can read sentences written in English, understand the text outline, read and extract necessary information. 5) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.						
Rubric						
		Ideal Level	Standard Level		Unacceptable Level	
Achievement 1		The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.	
Achievement 2		The student has well learned to use grammar rules appropriately, according to the high school study guidelines.	The student has learned to use grammar rules appropriately, according to the high school study guidelines.		The student has not learned to use grammar rules appropriately, according to the high school study guidelines.	
Achievement 3		The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	
Achievement 4		The student can well read sentences written in English, understand the text outline, read and extract necessary information.	The student can read sentences written in English, understand the text outline, read and extract necessary information.		The student can not read sentences written in English, understand the text outline, read and extract necessary information.	
Achievement 5		The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	
Assigned Department Objectives						
Teaching Method						
Outline	Based on the junior high school learned content, to understand the basic structure of English sentences and acquire reading skills. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.					
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook. Handout will be provided in the first week. Go over the handout and understand it in detail.					
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning						
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced	
Course Plan						
			Theme	Goals		
2nd Semester r	3rd Quarter	1st	Go over the previous lessons	To overcome weak points		
		2nd	Chapter 5 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.		
		3rd	Chapter 5 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.		
		4th	Chapter 5 Part 4 Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.		
		5th	Chapter 6 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.		
		6th	Chapter 6 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.		
		7th	Chapter 6 Part 4 Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.		
		8th	Chapter 7 Part 1/2	Understanding the cross-cultural communication through authentic materials.		
	4th Quarter	9th	Chapter 7 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.		

	10th	Chapter 7 Part 4 Language and Culture Workshop	Learn the vocabulary and grammar rules set as lesson tasks.
	11th	Chapter 8 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
	12th	Chapter 8 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.
	13th	Chapter 8 Part 4	Learn the vocabulary and grammar rules set as lesson tasks.
	14th	Review	Understanding the weak points on the content learned so far and preparing for the exam.
	15th	Q & A	Understanding the weak points on the content learned so far and preparing for the exam.
	16th	Final exam	Test the student understanding of the content learned so far.

Evaluation Method and Weight (%)							
	Examination	Assignments	Quizes	Behavior	Portfolio	Other	Total
Subtotal	50	10	40	0	0	0	100
Basic Proficiency	0	10	40	0	0	0	50
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	50	0	0	0	0	0	50

Akashi College		Year	2023	Course Title	English I B-1
Course Information					
Course Code	5115		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials	(1) 総合英語 Evergreen (参考書、教科書、Workbook) (2) データベース 5th Edition (3) ネクステージ				
Instructor	KITAGAWA Chiho				
Course Objectives					
1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately. 2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines. 3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines. 4) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.
Achievement 2	The student has well learned to use grammar rules appropriately, according to the high school study guidelines.		The student has learned to use grammar rules appropriately, according to the high school study guidelines.		The student has not learned to use grammar rules appropriately, according to the high school study guidelines.
Achievement 3	The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.
Achievement 4	The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.
Assigned Department Objectives					
Teaching Method					
Outline	Based on the junior high school learned content, to understand the basic structure of English sentences. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.				
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook.				
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of classes will not be eligible for evaluation.				
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	Course summary explanation	Understand the class schedule	
		2nd	Lesson 1 & 2	Learn the vocabulary and grammar rules set as lesson tasks.	
		3rd	Lesson 3 & 4	Learn the vocabulary and grammar rules set as lesson tasks.	
		4th	Lesson 5 & 6	Learn the vocabulary and grammar rules set as lesson tasks.	
		5th	Review	Understanding the weak points on the content learned so far.	
		6th	Review	Understanding the weak points on the content learned so far.	
		7th	Lesson 7 & 8	Learn the vocabulary and grammar rules set as lesson tasks.	
		8th	Lesson 9 & 10	Learn the vocabulary and grammar rules set as lesson tasks.	
	2nd Quarter	9th	Lesson 11 & 12	Learn the vocabulary and grammar rules set as lesson tasks.	
		10th	Review	Understanding the weak points on the content learned so far.	
		11th	Lesson 13 & 14	Learn the vocabulary and grammar rules set as lesson tasks.	
		12th	Lesson 15 & 16	Learn the vocabulary and grammar rules set as lesson tasks.	

		13th	Lesson 17 & 18	Learn the vocabulary and grammar rules set as lesson tasks.
		14th	Lesson 19 & 20	Learn the vocabulary and grammar rules set as lesson tasks.
		15th	Review	Understanding the weak points on the content learned so far and preparing for the exam.
		16th	End term exam	Test the student understanding of the content learned so far.

Evaluation Method and Weight (%)				
	Examination	Short Tests	Others	Total
Subtotal	60	0	40	100
Basic Proficiency	60	0	40	100
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	0	0	0

Akashi College		Year	2023	Course Title	English I B-2
Course Information					
Course Code	5116		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials	(1) 総合英語 Evergreen (参考書、教科書、Workbook) (2) データベース 5th Edition (3) ネクステージ				
Instructor	KITAGAWA Chiho				
Course Objectives					
1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately. 2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines. 3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines. 4) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.
Achievement 2	The student has well learned to use grammar rules appropriately, according to the high school study guidelines.		The student has learned to use grammar rules appropriately, according to the high school study guidelines.		The student has not learned to use grammar rules appropriately, according to the high school study guidelines.
Achievement 3	The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.
Achievement 4	The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.
Assigned Department Objectives					
Teaching Method					
Outline	Based on the junior high school learned content, to understand the basic structure of English sentences. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.				
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook.				
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☐ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester	3rd Quarter	1st	Course summary explanation	Understand the class schedule	
		2nd	Lesson 21 & 22	Learn the vocabulary and grammar rules set as lesson tasks.	
		3rd	Lesson 23 & 24	Learn the vocabulary and grammar rules set as lesson tasks.	
		4th	Lesson 25 & 26	Learn the vocabulary and grammar rules set as lesson tasks.	
		5th	Review	Understanding the weak points on the content learned so far.	
		6th	Lesson 27 & 28	Learn the vocabulary and grammar rules set as lesson tasks.	
		7th	Lesson 29 & 30	Learn the vocabulary and grammar rules set as lesson tasks.	
		8th	Lesson 31 & 32	Learn the vocabulary and grammar rules set as lesson tasks.	
	4th Quarter	9th	Lesson 33 & 34	Learn the vocabulary and grammar rules set as lesson tasks.	
		10th	Review	Understanding the weak points on the content learned so far.	
		11th	Lesson 35 & 36	Learn the vocabulary and grammar rules set as lesson tasks.	
		12th	Lesson 37 & 38	Learn the vocabulary and grammar rules set as lesson tasks.	

		13th	Lesson 39 & 40	Learn the vocabulary and grammar rules set as lesson tasks.
		14th	Lesson 41 & 42	Learn the vocabulary and grammar rules set as lesson tasks.
		15th	Review	Understanding the weak points on the content learned so far and preparing for the exam.
		16th	End term exam	Test the student understanding of the content learned so far.

Evaluation Method and Weight (%)				
	Examination	Short Tests	Others	Total
Subtotal	60	0	40	100
Basic Proficiency	60	0	40	100
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	0	0	0

Akashi College		Year	2023	Course Title	Introduction to Active Learning
Course Information					
Course Code	5117		Course Category	General / Compulsory	
Class Format	Seminar		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials	A separate handout will be provided.				
Instructor	TAKEDA Naho,HIRANO Masatsugu,MIZUNO Yuki				
Course Objectives					
Students acquire the mind, knowledge, and skills that form the basis of learning by grasping their interests and interests, thinking and acting with others. Students learn about the idea of building relationships between each other, work on problem solving as a team, and experience learning to achieve optimal solutions. Based on the purpose of the above subjects, the following three points are the goals to be achieved. 1) You can try to communicate with others. 2) You can try to listen to others. 3) You can try to look back on yourself.					
Rubric					
	Excellent		Good		Insufficient
Achievement 1	Be able to communicate with others.		Try to communicate with others.		Don't try to communicate with others.
Achievement 2	Be able to listen to others.		Try to listen to others.		Don't listen to others.
Achievement 3	Be able to look back on yourself.		Try to look back on yourself.		Don't look back on yourself.
Assigned Department Objectives					
Teaching Method					
Outline	At KOSEN, which are higher education institutions, it is necessary to "set up their own problems and find the right solutions for them". The purpose of this class is to acquire basic skills in learning at KOSEN through a series of processes of learning and learning about oneself and others, working on problem solving as a team, and creating "answers".				
Style	You will learn various ways of exploring through individual work and group work. The grade evaluation is judged by the deliverables of group work and individual work in the lecture. In addition, evaluation points are evaluated in each deliverable, such as the expressive power transmitted to the other party, the logical thinking ability to organize the path to the answer that you gave, and the introspective ability to reflect on your thoughts after receiving the other person's feedback. The four faculty members in charge of the class plan will share the lecture.				
Notice	Students who miss 1/4 or more of classes will not be eligible for evaluation. Classes are developed using a participatory learning method, focusing on discussions between students. By speaking out your own ideas and listening carefully to the voices of others, learning becomes richer. For this reason, it is necessary to actively participate in the process of creating a place of learning together. The overall evaluations will be based 40% on reports, 20% on presentations and feedback, and 40% on in-class assignments. Students who achieve 60% or above can pass the course.				
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	Orientation (All instructors)	To understand the outline and purpose of the course.	
		2nd	Introduce yourself & get to know each other (Takeda and Araki)	To learn about the students who take this course together.	
		3rd	Scientific writing (Takeda)	Can appropriately cite the underlying paper and make a sentence consisting of introductions, mains, and conclusions to show their claims.	
		4th	Basic of problem definition (Takeda)	Can propose a solution to the problem using the idea method after defining the problem by the present state and the clear culture of the target.	
		5th	Application of problem definition (Araki)	Can examine problem definitions and solutions based on interviews with others by utilizing problem definition technology and ideas	
		6th	Communication ① (Araki)	Can understand and practice the techniques of listening and questioning necessary for interactive communication.	
		7th	Communication ② (Ando)	Can understand and practice the discussion methods necessary to discuss various issues and issues.	
		8th	Teamwork ① (Hirano)	To practice learning with your peers.	
	2nd Quarter	9th	Teamwork ② (Hirano)	To practice problem solving as a team.	
		10th	Question without the answer: Society① (Araki)	Can understand the various methods for analyzing objects in a complex and uncertain society.	
		11th	Question without the answer: Society② (Araki)	Can understand the concept of creating value in a society with high complexity and uncertainty.	

		12th	Question without the answer: Science① (Ando)	Can understand the importance of cross-field collaboration by understanding commonalities and differences between specialized fields based on the relationship between science and technology and society
		13th	Question without the answer: Science② (Ando)	Can understand methods for communicating questions and answers based on the relationship between science and technology and society
		14th	Class planning① (Takeda)	Can reflect on their learning in this course and explain to others how to learn in the future.
		15th	Class planning② (Takeda)	Can reflect on their learning in this course and propose to others how to learn in the future.
		16th	Half-year review (final report)	To write about your own practice and plans for the future, in line with your half year study.

Evaluation Method and Weight (%)

	Reports	Presentations and feedback	Reflection	Effort status for classes	Total
Subtotal	30	20	30	20	100
基礎的能力	10	10	20	10	50
分野横断的能力	20	10	10	10	50

Akashi College		Year	2023	Course Title	Introduction to Data Science
Course Information					
Course Code	5118		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	TSUCHIDA Takayuki,NOMURA Hayato				
Course Objectives					
Can explain an overview and application examples of information technology, such as IoT, machine learning, and artificial intelligence.					
Can explain an overview of computers and networks.					
Can explain an overview of information security and examples of cyberattacks and defense.					
Can execute data utilization and analysis from big data and IoT, using a data processing language (Python).					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can fully explain an overview and application examples of information technology, such as IoT, machine learning, and artificial intelligence		Can explain an overview and application examples of information technology, such as IoT, machine learning, and artificial intelligence		Cannot explain an overview and application examples of information technology, such as IoT, machine learning, and artificial intelligence
Achievement 2	Can fully explain an overview of computers and networks		Can explain an overview of computers and networks		Cannot explain an overview of computers and networks
Achievement 3	Can fully explain an overview of information security and examples of cyberattacks and defense		Can explain an overview of information security and examples of cyberattacks and defense		Cannot explain an overview of information security and examples of cyberattacks and defense
Assigned Department Objectives					
Teaching Method					
Outline	The aim is to develop the knowledge and skills for the appropriate and effective use of information and information technology, to develop the ability to use them practically, and to develop an attitude toward proactively participating in an information society. The course will be held as an early introductory education to foster human resources capable of utilizing, analyzing, and evaluating real data such as "IoT," "big data," and "AI" following their acquisition of knowledge on "mathematics/data science/AI." Students will learn about real-world issues and how to resolve them appropriately through exercises, using real data and issues, and other practical examples in society by utilizing mathematics, data science, and AI. This lecture will be conducted by a faculty member who has been engaged at a company in middleware (database) research and development.				
Style	Students will learn information technology literacy (knowledge through lectures, and study of practical examples). Quizzes will be conducted every lesson to test students' understanding. Students will be evaluated based on quizzes and submitted work which serve as tests.				
Notice	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	The relationship between information technology and each department, and the components of information technology	Can explain the rules for using information systems in schools. Can explain application examples of information technology, such as IoT, machine learning, and artificial intelligence in each department (MECA). Can explain the components of information technology and relevant laws and regulations.	
		2nd	Application examples of information technology in MECA and an overview of the information technology used (1)	Can explain examples in Department M (automatic driving-related technology: traffic sign recognition), Department E (Go using deep learning), etc., and an overview of the information technology used	
		3rd	Application examples of information technology in MECA and an overview of the information technology used (2)	Can explain examples in Department C (infrastructure maintenance using IoT: motorway turbines and GIS), Department A (building security and contemporary art), etc., and an overview of the information technology being used	
		4th	Application examples of information technology in MECA and an overview of the information technology used (3)	Can explain the details of the information technology used in MECA cases	
		5th	Supervised and unsupervised learning	Can explain machine learning with or without labeled data	
		6th	Regression analysis	Can explain regression analysis	
		7th	Review	Reflection on studies so far	
		8th	Mutual Evaluations between students	Mutual Evaluations between students	

	2nd Quarter	9th	Computer fundamentals (1)	Understand the structure of a computer, and what "calculation" by computer means.
		10th	Computer fundamentals (2)	Understand the role of an operating system.
		11th	Network fundamentals (1)	Understand the roles of information and communication networks in society.
		12th	Network fundamentals (2)	Understand network configurations and mechanisms.
		13th	Information security fundamentals	Understand the need for information security.
		14th	Cyberattacks and defense (1)	Understand the major attack tactics.
		15th	Cyberattacks and defense (2)	Understand defense tactics against attacks.
		16th	Final exam	None

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	0	0	0	0	100	0	100
Basic Proficiency	0	0	0	0	40	0	40
Specialized Proficiency	0	0	0	0	40	0	40
Cross Area Proficiency	0	0	0	0	20	0	20

Akashi College		Year	2023	Course Title	Exercise in Data Science
Course Information					
Course Code	5119		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	TSUCHIDA Takayuki,NOMURA Hayato,ENOMOTO Ryuji				
Course Objectives					
Can explain an overview and application examples of information technology, such as IoT, machine learning, and artificial intelligence.					
Can explain an overview of computers and networks.					
Can explain an overview of information security and examples of cyberattacks and defense.					
Can execute data utilization and analysis from big data and IoT, using a data processing language (Python).					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can fully explain an overview and application examples of information technology, such as IoT, machine learning, and artificial intelligence		Can explain an overview and application examples of information technology, such as IoT, machine learning, and artificial intelligence		Cannot explain an overview and application examples of information technology, such as IoT, machine learning, and artificial intelligence
Achievement 2	Can fully explain an overview of computers and networks		Can explain an overview of computers and networks		Cannot explain an overview of computers and networks
Achievement 3	Can fully explain an overview of information security and examples of cyberattacks and defense		Can explain an overview of information security and examples of cyberattacks and defense		Cannot explain an overview of information security and examples of cyberattacks and defense
Assigned Department Objectives					
Teaching Method					
Outline	The aim is to develop the knowledge and skills for the appropriate and effective use of information and information technology, to develop the ability to use them practically, and to develop an attitude toward proactively participating in an information society. The course will be held as an early introductory education to foster human resources capable of utilizing, analyzing, and evaluating real data such as "IoT," "big data," and "AI" following their acquisition of knowledge on "mathematics/data science/AI." Students will learn about real-world issues and how to resolve them appropriately through exercises, using real data and issues, and other practical examples in society by utilizing mathematics, data science, and AI. This lecture will be conducted by a faculty member who has been engaged at a company in middleware (database) research and development.				
Style	Students will practice programming, data analytics, and analysis with examples using the Python program. Quizzes will be conducted every lesson to test students' understanding. Students will be evaluated based on quizzes and submitted work which serve as tests.				
Notice	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	
2nd Semester	3rd Quarter	1st	Introduction to programming (1)	Learn Python programming syntax	
		2nd	Introduction to programming (2)	Learn Python programming syntax	
		3rd	Introduction to programming (3)	Learn Python programming syntax	
		4th	Deep learning	Learn about implementing deep learning through the use of sample codes	
		5th	Data science for control system	Learn about overview of deep learning from the point of view of control system, and attention is also given to applied problems in control system	
		6th	Data Visualization	Can demonstrate data visualization using a web server	
		7th	Statistical analysis (1)	Can demonstrate a simple regression analysis	
		8th	Statistical analysis (2)・Mutual Evaluations between students	Can demonstrate simple clustering (k-means)・Mutual Evaluations between students	
	4th Quarter	9th	Computer configuration and programming	Check a computer's configuration and performance by obtaining system information and creating a simple benchmark with the use of Python	
		10th	Parallel processing	Learn how to write and execute parallel processing in Python to speed up your program	
		11th	Automated file processing	Automate file processing in Python and learn how to optimize simple tasks	
		12th	Automated web information retrieval	Learn about web scraping, a method for automatically retrieving web information in Python	

		13th	Network processing (1)	Learn how to automate web-related tasks by programming
		14th	Network processing (2)	Learn more about handling Internet communication through Python
		15th	Security and summary of studies	Reproduce vulnerable websites in Python and learn about the need for security by verifying their behavior Review the previous exercises and learn how they relate to each other and how they can be combined to build a system
		16th	Final exam	None

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	0	0	0	0	100	0	100
Basic Proficiency	0	0	0	0	40	0	40
Specialized Proficiency	0	0	0	0	40	0	40
Cross Area Proficiency	0	0	0	0	20	0	20

Akashi College		Year	2023		Course Title	Music-1
Course Information						
Course Code		5120		Course Category	General / Elective	
Class Format		Skill		Credits	School Credit: 1	
Department		Mechanical Engineering		Student Grade	1st	
Term		First Semester		Classes per Week	2	
Textbook and/or Teaching Materials		Music I Tutti+(Kyoiku-Shuppan, Co.). Various sheet music and other printouts will also be distributed in class.				
Instructor		IZUMI Yuka				
Course Objectives						
1. Acquire and practice the basics of vocalization and chorus. 2. Master the basics of chord names. 3. Learn the basics of the recorder flute and practice them. 4. Plan and practice musical performance.						
Rubric						
		Ideal Level		Standard Level		Unacceptable Level
Achievement 1		The student acquired and practiced the basics of vocalization and chorus well.		The student acquired and practiced the basics of vocalization and chorus.		The student did not acquire or practice the basics of vocalization and chorus.
Achievement 2		The student mastered the basics of chord names well.		The student mastered the basics of chord names.		The student did not master the basics of chord names.
Achievement 3		The student acquired the basics of the recorder flute and practiced them well.		The student acquired basics of the recorder flute and practiced them.		The student did not acquire the basics of the recorder flute or practice them.
Achievement 4		The student could plan and practice musical performances well.		The student could plan and practice basic musical performances.		The student could not plan or practice musical performances.
Assigned Department Objectives						
Teaching Method						
Outline		To know the joy of expressing yourself through music. Experience not only disposable music, but also genuine "music" that has survived times regardless of its eastern or western origins.				
Style		Practical classes of music expression.				
Notice		Some texts and songs are difficult to play. The student will not earn a sense of accomplishment without careful and serious practice. Also, since this course deals with "sound", refrain from unnecessary private talk. Prepare recorder flutes (all) and pianica flutes (for those who have them). Students who miss 1/4 or more of classes will not be eligible for evaluation. Practical experience: The instructor is an experienced vocalist. She has co-starred in recitals and orchestras in Japan and overseas, and can use her experience to teach students with specific and up-to-date information on music.				
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	Parting, grouping, stretching, vocalization practice, singing a simple two-voice song		To be able to sing a simple two-voice song.	
		2nd	Etude I for Choral		To sing simple songs with piano accompaniment.	
		3rd	Etude II for Choral		To sing simple songs with piano accompaniment.	
		4th	Chord name Basics I		Understand the simplest 3 chords.	
		5th	Etude III for Choral		Can sing 2-voice or 3-voice J/POP.	
		6th	Etude IV for Choral		Can get the correct pitch even in a few people group.	
		7th	Etude V for Choral		Harmony can be echoed beautifully, even in a few people group.	
		8th	Chord name Basics II		Chord name practice and quizzes, group presentation practice.	
	2nd Quarter	9th	Etude VI for Choral		Final practice for the group presentation.	
		10th	Etude VII for Choral		The group will present and be able to transmit something to other people, beyond self-satisfaction.	
		11th	Recorder Flute Basics I		Rediscover the charm of the recorder flute!	
		12th	Recorder Flute Basics II		Play a simple ensemble.	
		13th	Planning and practice for practical skill test I		To plan a free music performance in the students' expertise field.	
		14th	Planning and practice for practical skill test II		To plan a free music performance in the students' expertise field.	
		15th	Practical test and "Class presentation"		Practical test and "Class presentation"	
		16th	No end term exam			
Evaluation Method and Weight (%)						

	Attendance	Behavior	Practical Test	Vocal/Flute	Chord Test	Other	Total
Subtotal	10	15	35	20	20	0	100
Basic Proficiency	10	8	25	20	20	0	83
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	7	10	0	0	0	17

Akashi College		Year	2023		Course Title	Music-2
Course Information						
Course Code	5121			Course Category	General / Elective	
Class Format	Skill			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	Second Semester			Classes per Week	2	
Textbook and/or Teaching Materials	Music I Tutti+(Kyoiku-Shuppan, Co.). Various sheet music and other printouts will also be distributed in class.					
Instructor	IZUMI Yuka					
Course Objectives						
1. Acquire and practice the basics of vocalization and chorus. 2. Master the basics of chord names. 3. Learn the basics of the recorder flute and practice them. 4. Plan and practice musical performance.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	The student acquired and practiced the basics of vocalization and chorus well.		The student acquired and practiced the basics of vocalization and chorus.		The student did not acquire or practice the basics of vocalization and chorus.	
Achievement 2	The student mastered the basics of chord names well.		The student mastered the basics of chord names.		The student did not master the basics of chord names.	
Achievement 3	The student well acquired the basics of the recorder flute and practiced them.		The student acquired the basics of the recorder flute and practiced them.		The student did not acquire the basics of the recorder flute or practice them.	
Achievement 4	The student could plan and practice musical performances well.		The student could plan and practice basic musical performances.		The student could not plan or practice musical performances.	
Assigned Department Objectives						
Teaching Method						
Outline	To know the joy of expressing yourself through music. Experience not only disposable music, but also genuine “music” that has survived times regardless of its eastern or western origins.					
Style	Practical classes of music expression.					
Notice	Some texts and songs are difficult to play. The student will not earn a sense of accomplishment without careful and serious practice. Also, since this course deals with “sound”, refrain from unnecessary private talk. Prepare recorder flutes (all) and pianica flutes (for those who have them). Students who miss 1/4 or more of classes will not be eligible for evaluation. Practical experience: The instructor is an experienced vocalist. She has co-starred in recitals and orchestras in Japan and overseas, and can use her experience to teach students with specific and up-to-date information on music.					
Characteristics of Class / Division in Learning						
☒ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☒ Instructor Professionally Experienced
Course Plan						
			Theme		Goals	
2nd Semester r	3rd Quarter	1st	A Cappella Challenge I		First of all, sing a short four-voice song of about eight measures with a sense of beautiful harmony.	
		2nd	A Cappella Challenge II		Select a song from the a cappella selection, suitable for the group and practice in the group.	
		3rd	A Cappella Challenge III		Repeat practice and check the group progress.	
		4th	A Cappella Challenge IV		In addition to performing at the group presentation, to enjoy listening to other groups' performances.	
		5th	Chord Name Basics III		Learn 7th and fraction chords. To be able to analyze songs.	
		6th	Chord Name Basics IV		The measure of knowledge acquired through short tests.	
		7th	Chord Name Basics V		Review of week 6.	
		8th	Chord Name Basic VI		Music knowledge quiz	
	4th Quarter	9th	Joy of singing I		To try to sing the chorus of popular contemporary composers.	
		10th	Joy of singing II		To express the song carefully and with details. To do the best possible vocalization and sound.	
		11th	Joy of singing III		Each student should be aware of the music and feel the joy of singing together with thoughtful and dynamic expression.	
		12th	Planning and practice for practical skill test I		Prepare for practical tests. A cappella ensemble, guitar solo, piano solo, etc.	
		13th	Planning and practice for practical skill test II		Plan and practice with limited time and equipment.	
		14th	Planning and practice for practical skill test III		Learn from practice.	

		15th	Practical test and "Class presentation" Course summary			Practical test and "Class presentation." Course summary.	
		16th	No end term exam				
Evaluation Method and Weight (%)							
	Attendance	Behavior	Practical Test	Vocal/Flute	Chord Test	Other	Total
Subtotal	10	15	35	20	20	0	100
Basic Proficiency	10	8	25	20	20	0	83
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	7	10	0	0	0	17

Akashi College		Year	2023		Course Title	Art-1
Course Information						
Course Code	5122			Course Category	General / Elective	
Class Format	Skill			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	First Semester			Classes per Week	2	
Textbook and/or Teaching Materials	Art 1 (Mitsumura Tosho Publishing). Various printouts will also be distributed in class.					
Instructor	OHNO Ryohei					
Course Objectives						
1. Can express things in several art forms. 2. Can appreciate works of art and comment on them in groups. 3. Understand the relationship between real life and art.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	Can express things freely in several art forms.		Can express things in several art forms.		Cannot express things in several art forms.	
Achievement 2	Can accurately appreciate works of art and comment on them in groups.		Can appreciate works of art and comment on them in a group.		Cannot appreciate works of art and comment on them in a group.	
Achievement 3	Can fully understand the relationship between real life and art.		Can understand the relationship between real life and art.		Can not understand the relationship between real life and art.	
Assigned Department Objectives						
Teaching Method						
Outline	By expressing things in different art forms including 2-dimensional portraying (sketching), 3-dimensional works (clay works), color (color materials), ideas (images), students refine their sensitivity and learn how art is related to real life.					
Style	Classes are mainly conducted through practical lessons on how to express things in different art forms. Liaison: John C. Herbert					
Notice	This subject is taught by a teacher who has been practicing town development for many years through his art work and writing activities as a contemporary art writer. Applying his experiences to practical lessons, he questions what art really means. This course requires individuals to take their own initiative. Students are required to create art with a motivated attitude. A F6-size sketchbook is used in classes. Do not forget things like tools. Tidying and cleaning up the classroom after lessons are mandatory. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
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	Explaining the class content, tools, appreciation of works of art, assignments for the next class			
		2nd	Sketching 1		To draw Sketch 1.	
		3rd	Sketching 2		To draw Sketch 2.	
		4th	Sketching 3		To draw Sketch 3.	
		5th	Sketching 4		To draw Sketch 4.	
		6th	Sketching 5		To draw Sketch 5.	
		7th	Sketching 6		To draw Sketch 6.	
		8th	Abstract expression using color materials (image of nature 1)		To express things in an abstract art form using color materials.	
	2nd Quarter	9th	Abstract expression using color materials (image of nature 2)		To express things in an abstract art form using color materials.	
		10th	Abstract expression using color materials (image of nature 3)		To express things in an abstract art form using color materials.	
		11th	Abstract expression using color materials (image of nature 4)		To express things in an abstract art form using color materials.	
		12th	Group work / explaining the assignment for the next class		To comment on works expressed in an abstract form in a group.	
		13th	Figure (replicating skeletal frame 1)		To draw replicating skeletal frame of figure.	
		14th	Figure (croquis drawing 1)		To draw croquis.	
		15th	Figure (croquis drawing 2)		To draw croquis.	
		16th	No final exam			
Evaluation Method and Weight (%)						
	Practical skill production		Attendance・Behavior		Total	
Subtotal	80		20		100	
Basic Proficiency	80		20		100	

Specialized Proficiency	0	0	0
Cross Area Proficiency	0	0	0

Akashi College		Year	2023		Course Title	Art-2
Course Information						
Course Code	5123			Course Category	General / Elective	
Class Format	Skill			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	Second Semester			Classes per Week	2	
Textbook and/or Teaching Materials	Art 1 (Mitsumura Tosho Publishing). Various printouts will also be distributed in class.					
Instructor	OHNO Ryohei					
Course Objectives						
1. Can express things in several art forms. 2. Can appreciate works of art and comment on them in groups. 3. Understand the relationship between real life and art.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	Can express things freely in several art forms.		Can express things in several art forms.		Cannot express things in several art forms.	
Achievement 2	Can accurately appreciate works of art and comment on them in groups.		Can appreciate works of art and comment on them in a group.		Cannot appreciate works of art or comment on them in a group.	
Achievement 3	Can fully understand the relationship between real life and art.		Can understand the relationship between real life and art.		Can not understand the relationship between real life and art.	
Assigned Department Objectives						
Teaching Method						
Outline	By expressing things in different art forms including 2-dimensional portraying (sketching), 3-dimensional works (clay works), color (color materials), ideas (images), students refine their sensitivity and learn how art is related to real life.					
Style	Classes are mainly conducted through practical lessons on how to express things in different art forms. Liaison: John Herbert					
Notice	This subject is taught by a teacher who has been practicing town development for many years through his art work and writing activities as a contemporary art writer. Applying his experiences to practical lessons, he questions what art really means. This course requires individuals to take their own initiative. Students are required to create art with a motivated attitude. A F6-size sketchbook is used in classes. Do not forget things like tools. Tidying and cleaning up the classroom after lessons are mandatory. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning						
☒ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced
Course Plan						
			Theme	Goals		
2nd Semester	3rd Quarter	1st	Group work / explaining the assignment for the next class 4	To comment on replicated drawings and croquis drawings in a group.		
		2nd	Fieldwork 1 (outdoor sketching, and memorable landscapes and things)	To sketch outdoors.		
		3rd	Fieldwork 2 (outdoor sketching and memorable landscapes and things)	To sketch outdoors.		
		4th	Fieldwork 3 (outdoor sketching, and memorable landscapes and things)	To sketch outdoors.		
		5th	Group work / explaining the assignment for the next class 5	To comment on outdoor sketches in a group.		
		6th	Design (creating a character 1)	To design a character.		
		7th	Design (creating a character 2)	To design a character.		
		8th	Design (creating a character 3)	To design a character.		
	4th Quarter	9th	Environmental art 1 (art work that emerges into urban landscape / the relationship between art and society)	To appreciate environmental art.		
		10th	Environmental art 2 (art work that emerges into urban landscape / the relationship between art and society)	To appreciate environmental art.		
		11th	Environmental art 3 (art work that emerges into urban landscape / the relationship between art and society)	To appreciate environmental art.		
		12th	Expressing ideas 1 (image training)	To express ideas.		
		13th	Expressing ideas 2 (image training)	To express ideas.		
		14th	Expressing ideas 3 (image training)	To express ideas.		
		15th	General review of art	To understand the content of general review.		
		16th	No final exam			
Evaluation Method and Weight (%)						

	Practical skill production	Attendance • Behavior	Total
Subtotal	80	20	100
Basic Proficiency	80	20	100
Specialized Proficiency	0	0	0
Cross Area Proficiency	0	0	0

Akashi College		Year	2023		Course Title	Japanese I -1	
Course Information							
Course Code		5124		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 3	
Department		Mechanical Engineering		Student Grade		1st	
Term		First Semester		Classes per Week		前期:6	
Textbook and/or Teaching Materials		Minna no Nihongo Elementary II 2nd Edition by 3A Corporation, 3A Corporation / Learning 300 Kanji through Stories by Fusako Beuckmann, Kuroshio Publishers					
Instructor		KUBOTA Ikumi					
Course Objectives							
1. Understand Japanese writing, speaking, vocabulary, sentence patterns, and expressions, and can use them appropriately. 2. Can use Japanese to communicate information about topics of interest, feelings about said topics and reasons for those feelings, while also understanding the information, feelings, and reasons of others. Can also write sentences or connected text about these topics. 3. Have a clear understanding of the strengths and weaknesses of their own Japanese ability and skills and can explain them in their native language. Can also then think of the proper solutions to challenges on their own and put them into action.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Understand writing, speaking, vocabulary, sentence patterns, and expressions in different situations and contexts, and can use them appropriately.		Understand writing, speaking, vocabulary, sentence patterns, and expressions in different situations and contexts, and can use them appropriately to a certain extent.		Do not understand writing, speaking, vocabulary, sentence patterns, and expressions in different situations and contexts, and can barely use them.	
Achievement 2		Can use the words learned appropriately to express information about things and their feelings, etc. without hints or assistance.		Can use the words learned appropriately, and express information about things and their feelings, etc. with hints or assistance.		Cannot use the words learned, and cannot express much information about things or their feelings.	
Achievement 3		Can figure out their challenges, think of solutions, and put them into action.		Can figure out their challenges and think of solutions.		Even if they can figure out their challenges, they cannot think of a solution.	
Assigned Department Objectives							
Teaching Method							
Outline		Students will study beginner to intermediate Japanese throughout the year. In order to achieve the language activity targets set for every lesson, this course aims to enhance Japanese language ability and skills, and connect them to real use.					
Style		Students will review key points and practice them in a variety of ways during the class. Using the Japanese learned, they will engage in long speaking and writing, and other productive activities on their own and practice conversations with others.					
Notice		For every lesson, students will be expected to reflect on what they could and could not do, and to be proactive in improving their Japanese ability and skills. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
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	Orientation		Understand the class objectives and content, and your Japanese language levels.		
		2nd	"Minna no Nihongo Elementary II" Ch. 26		Can ask for explanations about other people's situations and explain their own situations and reasons for them. Can request things politely and ask for advice and instructions.		
		3rd	"Minna no Nihongo Elementary II" Ch. 27-28		Can say what they can and cannot do. Can talk about their habits. Can list several reasons for something.		
		4th	"Minna no Nihongo Elementary II" Ch. 29-30		Can describe the condition of an object. Can describe things to do in advance. Can talk about completion of an action. Can express their feelings about inconvenient situations.		
		5th	"Minna no Nihongo Elementary II" Ch. 32-33		Can talk about their intentions, plans, and appointments. Can advise others. Can express their speculations by the degree of certainty.		
		6th	"Minna no Nihongo Elementary II" Ch. 34-35		Understand instructions and commands. Can communicate or convey people's statements. Can describe the context of two actions.		
		7th	"Minna no Nihongo Elementary II" Ch. 35-36		Can talk about hypothetical situations. Can also make decisions under certain conditions and ask for advice or directions. Can state their goals.		
		8th	Reflection				

2nd Quarter	9th	"Minna no Nihongo Elementary II" Ch. 37-38	The appropriate use of the exchange and representation based on the hierarchy and level of intimacy in a personal relationship. Can give permission or approval to people who are not their superiors.	
	10th	"Minna no Nihongo Elementary II" Ch. 39-40	Can use honorifics properly to talk to superiors and people you meet for the first time, and to send emails.	
	11th	"Minna no Nihongo Elementary II" Ch. 42-43	In addition to organizing the knowledge of the Japanese you have already learned, look back on what you can do in Japanese and reconfirm your goals from the next week.	
	12th	"Minna no Nihongo Elementary II" Ch. 44-45	Can read and understand sentences about past events.	
	13th	"Minna no Nihongo Elementary II" Ch. 46-47	Understand the characteristics of Japanese grammar such as polysemous words and compound verbs, and can use idioms using body parts.	
	14th	"Minna no Nihongo Elementary II" Ch. 41, 48	Can read and understand sentences while understanding the contrast of things.	
	15th	"Minna no Nihongo Elementary II" Ch. 49-50	Knowing the diversity of vocabulary, you can paraphrase Wago and Katakana into Kango.	
	16th	Final exam		
Evaluation Method and Weight (%)				
	Examination	Assignments	Portfolio	Total
Subtotal	50	40	10	100
Basic Proficiency	50	20	0	70
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	20	10	30

Akashi College		Year	2023		Course Title	Japanese I -2	
Course Information							
Course Code		5125		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 2	
Department		Mechanical Engineering		Student Grade		1st	
Term		Second Semester		Classes per Week		4	
Textbook and/or Teaching Materials		Quartet: Intermediate Japanese Across the Four Language Skills I, The Japan Times by Tadashi Sakamoto, The Japan Times / Learning Kanji through Stories II 301-500 by Fusako Beuckmann, Kuroshio Publishers					
Instructor		KUBOTA Ikumi					
Course Objectives							
1. Understand Japanese writing, speaking, vocabulary, sentence patterns, and expressions, and can use them appropriately. 2. Can use Japanese to communicate information about topics of interest, feelings about said topics and reasons for those feelings, while also understanding the information, feelings, and reasons of others. Can also write sentences or connected text about these topics. 3. Have a clear understanding of the strengths and weaknesses of their own Japanese ability and skills and can explain them in their native language. Can also then think of the proper solutions to challenges on their own and put them into action.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Understand writing, speaking, vocabulary, sentence patterns, and expressions in different situations and contexts, and can use them appropriately.		Understand writing, speaking, vocabulary, sentence patterns, and expressions in different situations and contexts, and can use them appropriately to a certain extent.		Do not understand writing, speaking, vocabulary, sentence patterns, and expressions in different situations and contexts, and can barely use them.	
Achievement 2		Can use the words learned appropriately to express information about things and their feelings, etc. without hints or assistance.		Can use the words learned appropriately, and express information about things and their feelings, etc. with hints or assistance.		Cannot use the words learned, and cannot express much information about things or their feelings.	
Achievement 3		Can figure out their challenges, think of solutions, and put them into action.		Can figure out their challenges and think of solutions.		Even if they can figure out their challenges, they cannot think of a solution.	
Assigned Department Objectives							
Teaching Method							
Outline		Students will study beginner to intermediate Japanese throughout the year. In order to achieve the language activity targets set for every lesson, this course aims to enhance Japanese language ability and skills, and connect them to real use.					
Style		Students will review key points and practice them in a variety of ways during the class. Using the Japanese learned, they will engage in long speaking and writing, and other productive activities on their own and practice conversations with others.					
Notice		For every lesson, students will be expected to reflect on what they could and could not do, and to be proactive in improving their Japanese ability and skills. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning							
☒ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced	
Course Plan							
			Theme		Goals		
2nd Semester r	3rd Quarter	1st	"QUARTET1" Ch. 1		Understand the story about a famous person which represents Japan.		
		2nd	"QUARTET1" Ch. 1		Can describe people and things effectively, and write sentences that describe people you respect in detail.		
		3rd	"QUARTET1" Ch. 1		Can write a composition about the contents of week 2. Can read and comment on other people's compositions.		
		4th	"QUARTET1" Ch. 2		Can read the e-mails sent by students to teachers and understand how to write e-mails and expressions that are often used in e-mails.		
		5th	"QUARTET1" Ch. 2		Can explain your current status easily.		
		6th	"QUARTET1" Ch. 2		Can report your current status by e-mail to the teacher in your home country.		
		7th	"QUARTET1" Ch. 3		Can read guides and columns to read the information you need		
		8th	"QUARTET1" Ch. 3		Can compare your home country with Japan and notice the characteristics of your home country.		
	4th Quarter	9th	"QUARTET1" Ch. 3		Understand a topic sentence and a supporting sentence and rite a column on the contents of Week8. Can also read and comment on other people's columns.		
		10th	"QUARTET1" Ch. 5		Can see the charm of Japanese cuisine by reading the information magazine.		

		11th	"QUARTET1" Ch. 5	Understand adverbs and conjunctions that represent the order. Can also explain the order of how to make the dishes you want to make.
		12th	"QUARTET1" Ch. 5	Can summarize the recipes of dishes made during the winter vacation .
		13th	"QUARTET1" Ch. 4	Understand various study abroad experiences by reading some reports.
		14th	"QUARTET1" Ch. 4	Can look back on your own study abroad life and talk about the good points of studying abroad and what to be careful about.
		15th	"QUARTET1" Ch. 4	Can discuss your study abroad life with others, express your opinions, and comment on other people's opinions.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Assignments	Portfolio	Total
Subtotal	50	40	10	100
Basic Proficiency	50	20	0	70
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	20	10	30

Akashi College		Year	2023	Course Title	Japanese Culture and Society
Course Information					
Course Code	5126		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials	The teacher will make and distribute the handout.				
Instructor	KUBOTA Ikumi				
Course Objectives					
1. Learn about and understand Japanese culture, and also relate it to their own culture. Also realize the differences and similarities between the two cultures and can speculate about them. 2. Can speak for a reasonable amount of time and write a reasonable length about a range of topics on culture and language behavior in Japan and their own countries, in an easy-to-understand manner, with respect to social and cultural commonalities and differences.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Have more knowledge and information about Japanese culture than from what was presented in class.		Have sufficient knowledge and information about Japanese culture from what was presented in class.		Have basic knowledge and information about Japanese culture from what was presented in class.
Achievement 2	Can explain what they have noticed or speculated about the differences and similarities between their own culture and Japanese culture based on their background and reasoning.		Can explain what they have noticed or speculated about differences and similarities between their own culture and Japanese culture.		Cannot point out the differences or similarities between their own culture and Japanese culture.
Achievement 3	Can effectively use the Japanese they've already learned to express and write logical sentences on topics related to culture and language behavior in Japan and their own countries.		Can express words and phrases in a simple way or write connected sentences about the culture and language behavior of Japan and their own countries.		Cannot make sentences about the culture and language behavior of Japan or their own countries, and can only express them in words.
Assigned Department Objectives					
Teaching Method					
Outline	There are differences in language behavior and culture that we notice in real-life communication situations. The aim of this course is for students to develop a deeper understanding of the differences in language behavior and culture between Japan and their own countries. Also, to speak and write about themselves and their countries in Japanese, and relate them to the theme set for each lesson.				
Style	The class will be carried out using handouts. Students will say what they noticed in class during class time or fill it out on a handout. For Japanese speaking and writing assignments, they should prepare, correct the places the instructor put a check mark on by themselves, and present or submit them when finished.				
Notice	We hope this class will deepen students' understanding of Japan and their own cultures and allow them to be able to think about them more clearly. In addition, this class involves speaking and writing in Japanese, so students are expected to use it as an opportunity to practice producing actual Japanese by using vocabulary, sentence patterns, and expressions that they have learned. Students who miss 1/4 or more of classes will not be eligible for evaluation.				
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	Orientation	Understand the class objectives and content.	
		2nd	Necessary procedures for living after coming to Japan	Can write your personal information in Japanese.	
		3rd	Necessary procedures for living after coming to Japan	Can write your personal information in Japanese while interacting with the person in charge at banks or mobile phone shops.	
		4th	Self-introduction	Learn about topics that Japanese people often talk about in self-introduction, and notice the difference from your own country. Can also think about why each country tends to deal with the topic.	
		5th	Self-introduction	Can introduce yourself in some detail while incorporating the contents that Japanese people often talk about in self-introduction.	
		6th	Conversation with the shop staff	Can express the conditions of what you want in Japanese. Also, understand the expressions used when shopping and eating.	
		7th	Conversation with the shop staff	Can use the Japanese you learned in the 6th week to interact with the clerk to buy what you want.	

		8th	Dormitory life	Can notice the differences between your home country and Japan and the characteristics of each in the dormitory life.
	2nd Quarter	9th	Dormitory life	Can explain the goodness of living in the dormitory and the points that you are not used to.
		10th	Dormitory life	Can write a letter to thank the dormitory staff or suggest something.
		11th	Disaster and Disaster prevention	Understand words related to natural disasters and disaster prevention.
		12th	Disaster and Disaster prevention	Learn about Japan's efforts related to natural disasters and disaster prevention.
		13th	Disaster and Disaster prevention	Can find out about examples of efforts related to natural disasters and disaster prevention in Akashi City.
		14th	Disaster and Disaster prevention	Can explain concretely what you investigated in the 13th week.
		15th	Disaster and Disaster prevention	Can verbally tell others about the content of the 14th week. Can also listen to the announcements of others and give your thoughts and opinions.
		16th	Reflection	Can explain new things they found out in class, things that changed their minds, and how their Japanese abilities and skills have developed.

Evaluation Method and Weight (%)

	Presentation ・ Production work	Oral examination	Behavior	Total
Subtotal	70	20	10	100
Basic Proficiency	35	20	0	55
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	35	0	10	45

Akashi College		Year	2023		Course Title	Literacy for Disaster Risk Reduction
Course Information						
Course Code	5127			Course Category	Specialized / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	Second Semester			Classes per Week	2	
Textbook and/or Teaching Materials						
Instructor	MOTOZUKA Tomoki,YEGANE GHEZELLOO					
Course Objectives						
(1) Understand the natural disasters that occur in Japan, and acquire the knowledge, awareness, and skills related to disaster risk reduction and prevention.						
Rubric						
		Ideal Level		Standard Level		Unacceptable Level
Achievement 1		Can explain in detail the natural disasters that occur in Japan, and not only have acquired the knowledge, awareness, and skills related to disaster reduction and prevention but can also act on them.		Can explain the natural disasters that occur in Japan, and have acquired the knowledge related to disaster risk reduction and prevention		Cannot explain the natural disasters that occur in Japan.
Assigned Department Objectives						
Teaching Method						
Outline	In this course, students will understand disasters and acquire the knowledge, awareness, and skills related to disaster risk reduction and prevention to become a leader in disaster risk reduction and disaster prevention in various situations in their social lives or in the organizations to which they belong. Those who would like to can also work to acquire a Disaster Prevention Specialist qualification. Liaison: Tomoki Motozuka					
Style	Lectures will be held in an omnibus style: each theme will be different depending on the lecturer. However, there will also be collaborative learning such as CROSSROAD games. Lectures A: Weeks 1, 3, 4, 6, and 15; Motozuka: Weeks 2, 9-11, and 13; Visiting lecturers: Weeks 5, 7, 12, 14					
Notice	Students will learn the minimum amount of what they need to know to live in Japan, a developed country with many disasters. They will be expected to learn with an interest in real-world events and play an active role as a disaster prevention leader in the future. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning						
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced	
Course Plan						
			Theme		Goals	
2nd Semester	3rd Quarter	1st	1st week		Guidance, What is a disaster? [Lectures A]	
		2nd	2nd week		CROSSROAD game [Motozuka]	
		3rd	3rd week		Earthquake disasters [Lectures A]	
		4th	4th week		Tsunami disasters [Lectures A]	
		5th	5th week		Meteorological disasters (typhoons, torrential rains, abnormal weather) [Visiting lecturer]	
		6th	6th week		Sediment disasters (earthquakes and torrential rains) [Lectures A]	
		7th	7th week		Fire, emergency, and rescue Activities [Visiting lecturer]	
		8th	8th week		Midterm exam	
	4th Quarter	9th	9th week		Damage and restoration of lifelines [Motozuka]	
		10th	10th week		Reconstruction planning and urban reconstruction [Motozuka]	
		11th	11th week		Topics on information in the event of a disaster [Motozuka]	
		12th	12th week		Operating a shelter and living in temporary housing [Visiting lecturer]	
		13th	13th week		Responding to persons requiring special assistance in the event of a disaster [Motozuka]	
		14th	14th week		Volunteer disaster prevention organizations, regional disaster prevention plans, hazard maps [Visiting lecturer]	
		15th	15th week		Disaster risk management and business continuity plans [Lectures A]	
		16th	16th week		Final exam	
Evaluation Method and Weight (%)						
			Examination		Total	
Subtotal			100		100	

Basic Proficiency	0	0
Specialized Proficiency	80	80
Cross Area Proficiency	20	20

Akashi College		Year	2023	Course Title	Introduction to Information Processing
Course Information					
Course Code	5128		Course Category	Specialized / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	TANAKA Seiichi				
Course Objectives					
(1) Understand and can explain the importance of information ethics and security, and basic computer knowledge for collecting, processing, and transmitting information. (2) Understand how to use the Internet at school, and can act while keeping in mind the various rules in an information society. (3) Can create graphs, tables, and scientific and technical documents (reports and papers). (4) Can create presentation materials and deliver presentations.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Understand and can accurately explain the importance of information ethics and security, and basic computer knowledge for collecting, processing, and transmitting information.		Understand and can explain the importance of information ethics and security, and basic computer knowledge for collecting, processing, and transmitting information.		Do not understand the importance of information ethics and security, and basic computer knowledge to collect, process, and transmit information.
Achievement 2	Can discuss with others about what they can do to make a better information society. Can communicate their ideas about problems that may arise in an information society, and how to handle them when they arise.		Can put the things they can do to make a better information society into action. Can think about problems that may arise in an information society, and handle them when they arise.		Do not understand what they can do to make a better information society. Do not understand problems that may arise in an information society, and how to handle them when they arise.
Achievement 3	Can accurately produce charts, tables, and scientific and technical documents (reports and papers).		Can create charts, tables, and scientific and technical documents (reports and papers).		Cannot produce charts, tables, or scientific and technical documents (reports or papers).
	Can accurately create presentation materials and deliver clear presentations.		Can create presentation materials and deliver presentations.		Cannot create and deliver presentation materials.
Assigned Department Objectives					
Teaching Method					
Outline	In the beginning of the lecture, students will understand the importance of information ethics and security, basic computer knowledge for collecting, processing, and transmitting information, and learn how to register and use the networks and various systems in the school. After this, students will study the techniques necessary to organize data, produce scientific and technical documents (reports and papers), and practice presentations in order to conduct experiments, exercises and research in the Department of Mechanical Engineering using computers.				
Style	Based on the text that will be distributed at the beginning of the class, students will learn what were shown in the overview. There will be slide-based lectures in the Information Media Center, and a computer-based work and exercise in the lab.				
Notice	(1) Exercise in the class use computers. It is important to actively utilize the Information Media Center in accordance with the methods and rules of use of the school network (7. Information Center in Student Life), and to become familiar with computers (especially Office and other software) even outside of the classroom. Students do not need to prepare their own personal computer. (2) If students are not familiar with keyboard operation, they should practice keyboard operation early. However, there is no opportunity to practice during the class, so students will need to practice on their own. (3) Students should prepare their own file binders for organizing lecture materials. 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 r	1st Quarter	1st	Class guidance How to use the Internet at school; Problems in an information society and how to handle them	Can explain the objectives of the course. Understand and can explain information moral, and the safe use of information.	
		2nd	What is a computer and how it is used	Understand the hardware and software, and can use computers at the school.	
		3rd	Use of the internet 1	Understand the network and can send and receive emails.	
		4th	Use of the internet 2	Understand how to use the campus network and can use various services.	
		5th	How to write science and technology documents	Understand and can explain the importance of science and technology documents.	
		6th	Use of spreadsheet software 1	Understand and can practice how to make tables and graphs in scientific and technological documents.	

		7th	Use of spreadsheet software 2	Can organize data and draw a graph using spreadsheet software.
		8th	No midterm exam	
	2nd Quarter	9th	Use of word processing software 1	Understand the expression and organization of sentences in scientific and technological documents and can create documents based on them.
		10th	Use of word processing software 2	Can create scientific and technical documents containing information such as tables and graphs.
		11th	How to conduct a presentation	Understand and can explain the importance and rules of presentations.
		12th	Use of presentation software 1	Can plan presentations and create presentation materials.
		13th	Use of presentation software 2	Can plan presentations and create presentation materials.
		14th	Practice of presentation 1	Can transfer/gather information by presentation.
		15th	Practice of presentation 2	Can transfer/gather information by presentation.
		16th	Final exam	

Evaluation Method and Weight (%)

	Exercises	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Total
Subtotal	80	20	0	0	0	100
Basic Proficiency	0	0	0	0	0	0
Specialized Proficiency	80	20	0	0	0	100
Cross Area Proficiency	0	0	0	0	0	0

Akashi College		Year	2023	Course Title	Design and Drawing I A
Course Information					
Course Code	5129		Course Category	Specialized / Compulsory	
Class Format	Practical training		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	SHI Fenghui				
Course Objectives					
(1) Understand the standards of mechanical drawing and can accurately create drawings of mechanical parts, etc. (2) Can design major parts of various machinery and equipment based on their specifications, and create production drawings of them.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Understand the standards of mechanical drawing and can fully accurately create drawings of mechanical parts, etc.		Understand the standards of mechanical drawing and can accurately create production drawings of mechanical parts, etc.		Do not understand the standards of mechanical drawing and cannot accurately create production drawings of mechanical parts, etc.
Achievement 2	Can fully design major parts of various machinery and equipment based on their specifications, and create production drawings of them.		Can design major parts of various machinery and equipment based on their specifications, and create production drawings of them.		Cannot design major parts of various machinery and equipment based on their specifications, and create production drawings of them.
Assigned Department Objectives					
Teaching Method					
Outline	Students will learn the basic knowledge and rules of mechanical design drawings necessary to produce machines that are useful in living, and they will master drawing techniques. This course will be held in a lecture style, and taught by a faculty member who is engaged in mechanical design in a company. He will use his experience to teach students how to represent drawings, including the standards, projections, section and special representation of mechanical design drawings.				
Style	Lectures will be given in line with the textbook, and practice problems will be assigned.				
Notice	We will use the textbook, handouts, etc. to accumulate knowledge and learn about rules. While there are many things to learn, students should practice with patience and perseverance. Assignments must be submitted by the due date. Students who miss 1/4 or more of classes will not be eligible for evaluation.				
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	Machine definitions and design drawing, drawing scale, line, character type, and drawing representation	Learn about JIS standards, drawing scale, line and character types, etc.	
		2nd	Top view drawing	Learn top view drawing.	
		3rd	Drawing exercise [1] (how to use drawing tools, lines, top view drawing)	Can draw a hook in the exercise of top view drawing.	
		4th	Projection drawing (1)	Learn third-angle projection and orthographic projection drawing.	
		5th	Projection drawing (2)	Learn orthographic projection drawing.	
		6th	Auxiliary projection drawing	Learn auxiliary projection drawing.	
		7th	Section view drawing (1)	Understand section view drawing.	
		8th	Drawing exercise or short test	Drawing exercise or short test	
	2nd Quarter	9th	Section view drawing (2)	Learn full section view, one-sided section view, and partial section view drawing.	
		10th	Section view drawing (3)	Learn multi-section view drawing.	
		11th	Special projection drawing	Learn special projection drawing.	
		12th	Dimensioning (1)	Learn dimensioning.	
		13th	Dimensioning (2)	Learn dimensioning.	
		14th	Dimensioning (3)	Learn dimensioning.	
		15th	Three-dimensional drawing	Learn three-dimensional drawing using isometric view and cabinet projection.	
		16th	Final exam		
Evaluation Method and Weight (%)					
	Examination	Exercises	Behavior	Total	
Subtotal	50	50	0	100	
Basic Proficiency	0	0	0	0	
Specialized Proficiency	50	50	0	100	

Cross Area Proficiency	0	0	0	0
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Akashi College		Year	2023		Course Title	Design and Drawing I B
Course Information						
Course Code	5130			Course Category	Specialized / Compulsory	
Class Format	Practical training			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	1st	
Term	Second Semester			Classes per Week	2	
Textbook and/or Teaching Materials						
Instructor	SHI Fenghui					
Course Objectives						
(1) Understand the standards of mechanical drawing and can accurately create drawings of mechanical parts, etc. (2) Can design major parts of various machinery and equipment based on their specifications, and create production drawings of them.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	Understand the standards of mechanical drawing and can fully accurately create drawings of mechanical parts, etc.		Understand the standards of mechanical drawing and can accurately create production drawings of mechanical parts, etc.		Do not understand the standards of mechanical drawing and cannot accurately create production drawings of mechanical parts, etc.	
Achievement 2	Can fully design major parts of various machinery and equipment based on their specifications, and create production drawings of them.		Can design major parts of various machinery and equipment based on their specifications, and create production drawings of them.		Cannot design major parts of various machinery and equipment based on their specifications, and create production drawings of them.	
Assigned Department Objectives						
Teaching Method						
Outline	Students will learn the basic knowledge and rules of mechanical design drawings necessary to produce machines that are useful in living, and they will master drawing techniques. This course will be held in a lecture style, and taught by a faculty member who is engaged in mechanical design in a company. He will use his experience to teach students how to represent drawings, dimensioning, production drawings and how to draft drawings of items such as gears, shaft, bearing and screws.					
Style	Lectures will be given in line with the textbook, and practice problems will be assigned.					
Notice	We will use the textbook, handouts, etc. to accumulate knowledge and learn about rules. While there are many things to learn, students should practice with patience and perseverance. Assignments must be submitted by the due date. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning						
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☒ Instructor Professionally Experienced	
Course Plan						
			Theme	Goals		
2nd Semester r	3rd Quarter	1st	Dimensional tolerances and fit (1)	Can understand dimension tolerances and fit.		
		2nd	Dimensional tolerances and fit (2)	Can mention dimension tolerances and fit in the drawings.		
		3rd	Geometric tolerance representation (1)	Understand the definition, type, etc. of geometrical tolerances.		
		4th	Geometric tolerance representation (2)	Can accurately mention geometric tolerances in the drawings.		
		5th	Surface texture representation	Understand surface texture and can mention it in the drawings.		
		6th	Fastening components (method of displaying the screws)	Can draft drawing of the fastening parts.		
		7th	Drawing exercise (fastening parts)	Drawing		
		8th	Drawing exercise or short test	Drawing exercise or short test		
	4th Quarter	9th	Bearing representation	Can identify the types of roller bearings and how to draft drawings.		
		10th	Gear representation (1)	Can identify the types of gears and the names of its each part.		
		11th	Gear representation (2)	Can create a standard flat gear drawing.		
		12th	Drawing exercise (rotary shaft and gears)	Can create drawings of rotary shafts and gears.		
		13th	Production drawings (assembly drawings and part diagrams)	Can create production drawings.		
		14th	Drawing exercise (screw jack)	Can create assembly and part diagrams.		
		15th	Examples of application of mechanical elements and the AutoCAD Mechanical experience	Can have an AutoCAD Mechanical experience.		
		16th	Final exam			
Evaluation Method and Weight (%)						
	Examination		Exercises		Behavior	Total

Subtotal	50	50	0	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	50	50	0	100
Cross Area Proficiency	0	0	0	0

Akashi College		Year	2023	Course Title	Manufacturing Engineering Practice I A
Course Information					
Course Code	5131		Course Category	Specialized / Compulsory	
Class Format	Practical training		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	KATOH Takahiro, OHMORI Shigetoshi				
Course Objectives					
(1) Can carry out exercises based on procedures and instructions. (2) Can use the equipment and devices correctly. (3) Can report in writing, orally, etc. (4) Can carry out exercises by working together as a group. (5) Can acquire basic knowledge and skills in mechanical engineering. (A) Understand the basics and precautions of sand casting, and can cast aluminum. (B) Understand the basics and precautions of welding and can use arc welding. (C) Understand the basics and precautions of hand-finished work, and can perform drilling, tapping with tap dies, and marking.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can fully carry out exercises based on the instructions and procedures provided.		Can carry out exercises based on the instructions and instructions provided.		Cannot carry out exercises based on the instructions and instructions provided.
Achievement 2	Can use equipment and devices sufficiently and correctly.		Can use equipment and devices correctly.		Cannot use equipment and devices correctly.
Achievement 3	Can report sufficiently in writing, orally, etc.		Can report in writing, orally, etc.		Cannot report in writing, orally, etc.
	Can carry out exercises by working together as a group while encouraging other members.		Can carry out exercises by working together as a group.		Cannot carry out exercises by working together as a group.
	Understand the basics and precautions of sand casting, and can accurately cast aluminum.		Understand the basics and precautions of sand casting, and can cast aluminum.		Do not understand the basics and precautions of sand casting, and cannot cast aluminum.
	Understand the basics and precautions of lathe machining, and can fully perform basic lathe machining.		Understand the basics and precautions of lathe machining, and can perform basic lathe machining.		Do not understand the basics and precautions of lathe machining, and cannot perform basic lathe machining.
	Understand the basics and precautions of hand-finishing, and can accurately perform drilling, threading with tap dice and marking.		Understand the basics and precautions of hand-finishing and can perform drilling, threading with tap dies, and marking.		Do not understand the basics and precautions of hand-finishing, and cannot perform drilling, threading with tap dice, or marking.
Assigned Department Objectives					
Teaching Method					
Outline	The course involves basic exercises to become familiar with individual elemental work. The goals are: 1. Understand basic techniques through basic working motions. 2. Master the correct working procedures and develop safe working practices and habits. 3. Develop a habit of dealing with things quantitatively.				
Style	Students will split into six groups and carry out different assignments in turn. In addition, we will go on a factory tour to deepen knowledge of production methods.				
Notice	Wear proper protective equipment. Always take responsible action, and work safely. Listen carefully to explanation by the instructor on the structure, function, and operation of the equipment. Correctly handle the machinery and tools used. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
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	Introduction education I (Kato and Omori)	Understand how to use the training factory.	
		2nd	Introduction education II (Kato and Omori)	Understand the basics of measurement instruments and use vernier calipers and micrometers.	
		3rd	Casting basic exercise I (Kato and Omori)	Understand the history of castings, the names of the casting tools, and how to use sticks and stamps	
		4th	Casting basic exercise II (Kato and Omori)	Understand how to measure the hardness of the mold, how to cast in the lower mold, how to cast in the upper mold, and how to make the funnel	
		5th	Casting basic exercise III (Kato and Omori)	Understand the types and roles of the ingrates, how to cut the ingrate, and how to remove the wood mold.	
		6th	Basic casting exercise IV (Kato and Omori)	Can cast in.	

		7th	Lathing basic exercise I (Kato and Omori)	Understand the safety in exercise and working knowledge of the exercise and understand the structure.
		8th	Factory tour	Can deepen knowledge and insight of production system and production control.
	2nd Quarter	9th	Lathing basic exercise II (Kato and Omori)	Can perform drilling and outer round milling.
		10th	Lathing basic exercise III (Kato and Omori)	Can measure dimensions and perform stepped axial machining.
		11th	Lathing basic exercise IV (Kato and Omori)	Can perform end facing and finishing.
		12th	Hand-finishing basic exercise I (Kato, Omori)	Understand correct use of hand tools such as file
		13th	Hand-finishing basic exercise II (Kato, Omori)	Can perform threading with tap dice.
		14th	Hand-finishing basic exercise III (Kato, Omori)	Understand the basic use of marking and tools.
		15th	Hand-finishing basic exercise IV (Kato, Omori)	Can perform drilling with small drilling machines or electric drills.
		16th	No final exam	

Evaluation Method and Weight (%)

	Report	the work	Behavior	Total
Subtotal	60	20	20	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	60	20	20	100
Cross Area Proficiency	0	0	0	0

Akashi College		Year	2023	Course Title	Manufacturing Engineering Practice I B
Course Information					
Course Code	5132		Course Category	Specialized / Compulsory	
Class Format	Practical training		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials	Hand outs				
Instructor	KATOH Takahiro, OHMORI Shigetoshi				
Course Objectives					
(1)To conduct practical training based on instructions and procedure manual (2)Can use correctly the equipment and machinery (3)Can make written and spoken reports. (4) To conduct practical training in cooperation with the group.. (5)To can acquire basic knowledge and skills related to mechanical engineering. (a)Understand the basics and precautions of lathe work and to perform basic turning work. (b)Understand the basics and precautions of milling work and perform basic cutting work. (c)To disassemble and assemble machines using tools correctly. To understand the correct use of tools and the mechanism of vehicles through disassembly and assembly an automobile.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	The student can fully practice based on the procedure manuals and instructions prepared in advance.		The student can practice based on the procedure manuals and instructions prepared in advance.		The student can not practice based on the procedure manuals and instructions prepared in advance.
Achievement 2	The student can correctly well use the equipment and machinery.		The student can correctly use the equipment and machinery.		The student can correctly not use the equipment and machinery.
Achievement 3	The student can elaborate understandable written and oral reports.		The student can elaborate written and oral reports.		The student can elaborate not written and oral reports.
Achievement 4	The student can conduct practical training while cooperating in the group and encouraging others.		The student can conduct practical training while cooperating in the group.		The student can not conduct practical training while cooperating in the group.
Achievement 5 (a)	The student can use welding accurately.		The student can understand the basics and precautions of welding and can use arc welding.		The student can not understand the basics and precautions of welding or can not use arc welding.
Achievement 5 (b)	The student can understand the basics and precautions of milling work, and can sufficiently perform simple cutting work.		The student can understand the basics and precautions of milling work, and can perform simple cutting work.		The student can not understand the basics and precautions of milling work, and can not perform simple cutting work.
Achievement 5 (c)	The student can fully understand the structure of a machine from disassembly and assembly this machine.		The student can understand the structure of a machine from disassembly and assembly this machine.		The student can not understand the structure of a machine from disassembly and assembly this machine.
Assigned Department Objectives					
Teaching Method					
Outline	To become familiar with basic practical and individual work 1. Understand and acquire basic technics through simple work operations. 2. Learn the correct work procedures and develop attitudes and habits to operate the machines safely.3. Develop a habit of dealing with things quantitatively.				
Style	The students are organized into six groups and will carry out practical exercises in rotation. Also, a factory visit will deepen the students' knowledge of production methods.				
Notice	To wear protective equipment correctly, always act responsibly, work safely and listen carefully to the instructor's explanation of the equipment structure, function, and operation, yo handle the machines and tools correctly. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester	3rd Quarter	1st	Welding Basic Training I (Kato / Omori)	To understand welding principles, welding work safety and how to wear protective gear properly.	
		2nd	Welding Basic Training II (Kato / Omori)	To understand welder structure and its tools, to generate arcs.	
		3rd	Welding Basic Training III (Kato / Omori)	To do straight and weaving beads	
		4th	Welding Basic Training IV (Kato / Omori)	To do temporary attachment work and fillet welding.	
		5th	Milling basic training I (Kato / Omori)	Understand the structure and how to perform milling training safely.	

		6th	Milling basic training II (Kato / Omori)	To manufacture a square pillar using a face milling cutter.
		7th	Milling basic training III (Kato / Omori)	To manufacture a square pillar using a face milling cutter.
		8th	Factory tour	Can deepen your knowledge and insight of production systems and production management.
	4th Quarter	9th	Milling basic training IV (Kato / Omori)	Understand the conditions for manufacturing a square pillar using a face milling cutter
		10th	Vehicle disassembly and assembly training I (Omori)	Understand the basic principles to hand tools.
		11th	Vehicle disassembly and assembly training II (Omori)	Understand the basic principles to hand tools.
		12th	Vehicle disassembly and assembly training III (Omori)	To disassemble and understand the structure of a four-wheel buggy.
		13th	Vehicle disassembly and assembly training IV (Omori)	To assemble the disassembled four-wheel buggy.
		14th	Assignment	Accurately summarize the knowledge and skills acquired in the practical training.
		15th	Factory visit field trip (Kato / Omori)	To can understand the work process of a production site by visiting a production factory.
		16th	No end term exams	

Evaluation Method and Weight (%)

	Examination	Assignments	Product	Behavior	Total
Subtotal	0	60	20	20	100
Basic Proficiency	0	0	0	0	0
Specialized Proficiency	0	60	20	20	100
Cross Area Proficiency	0	0	0	0	0

Akashi College		Year	2023	Course Title	Practice on Mechanical Engineering I A
Course Information					
Course Code	5133		Course Category	Specialized / Compulsory	
Class Format	Practical training		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials	Handout				
Instructor	MORISHITA Tomohiro				
Course Objectives					
(1) Engineering Basics: Explain the relationship between mechanical engineering and science. (2) Engineer ethics: Explain the relationship between mechanical engineering and nature/society. (3) Creativity: As an engineer, explain the meaning of creativity. (4) Communication skills: To be able to write and speak compressibly, listen and understand others' opinions. (5) Collaborativeness: To be able to work in groups and consult others. (6) Engineering literacy: Understand the instruction manual for practical work, and safely operate the instruments and correctly acquire data from it.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
(1) Engineering Basics	The student can explain the relationship between mechanical engineering and science and apply scientific knowledge to engineering problems.		The student can explain the relationship between mechanical engineering and science.		The student can not explain the relationship between mechanical engineering and science.
(2) Engineer ethics	The student can explain the relationship between mechanical engineering and nature/society, practice and express his/her opinions.		The student can explain the relationship between mechanical engineering and nature/society.		The student can not explain the relationship between mechanical engineering and nature/society.
(3) Creativity	The student can explain the meaning of creativity as an engineer and be able to develop and attribute new value to other people creations.		The student can explain the meaning of creativity as an engineer.		The student can not explain the meaning of creativity as an engineer.
(4) Communication skills	The student can write and speak compressibly, listen and understand others' opinions, ask questions to allow a better comprehension of the topic.		The student can write and speak compressibly, listen and understand others' opinions.		The student can not write or speak compressibly, listen or understand others' opinions.
(5) Collaborative ability	The student can exchange opinions with each other and work together.		The student can cooperate with group work.		The student can not cooperate with group work and works alone.
(6) Engineering literacy	The student can understand the instruction manual for practical work, and safely operate the instruments and correctly acquire reliable data from the equipment.		The student can understand the instruction manual for practical work, and safely operate the instruments and correctly acquire data from the equipment.		The student can not understand the instruction manual for practical work and can not safely operate the instruments or acquire data from the equipment.
Assigned Department Objectives					
Teaching Method					
Outline	Acquire essential knowledge as a mechanical engineer through practical learning and experience how fun is creative work and manufacturing. Understand the relationship between mechanical engineering and science and coexistence with nature and society.				
Style	To deepen understanding of the knowledge acquired in lectures and experiencing it practically.				
Notice	To be able to self learn and participate positively to engage in the subsequent study of specialized subjects actively. Only 5 absences will be excused.				
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	Mechanical Engineering and Natural Sciences (1): Let's start Learning Mechanical Engineering!	To explain the definitions of machinery and engineering.	
		2nd	Mechanical Engineering and Natural Sciences (2): Simple Physics Experiments and Its Applications to Mechanical Engineering	To be able to demonstrate examples of natural phenomena and laws of nature applied to machines.	
		3rd	Machine Structure and Strength (1): Making a paper crane 1	To be able to give shape to ideas.	
		4th	Machine structure and strength (2): Load capacity contest 1	To safely operated measuring instruments.	
		5th	Machine Structure and Strength (3): Contest review	Explain the meaning of creativity as an engineer.	

		6th	Machine Structure and Strength (4): How strength changes according to structure, shape and how the force is applied.	Explain the relationship between mechanical engineering and science.
		7th	Machine Structure and Strength (5): Making of paper crane 2	To critically and scientifically evaluate the ideas of others and apply them.
		8th	Machine Structure and Strength (6): Load capacity contest 2	To observe the works of others and analyze it scientifically and logically.
	2nd Quarter	9th	Machine Structure and Strength (7): Paper crane presentation	To perform comprehensible presentations and to understand others' presentations.
		10th	Machine Mechanism (1): Investigation of Link Mechanism	To investigate into some applications of link mechanism.
		11th	Machine Mechanism (2): Link Mechanism Assembly	To follow the manual and select some right parts, can assemble some models of link mechanism.
		12th	Machine Mechanism (3): Observation and Reproduction of Toy Motion	To be able to understand a complicated motion of toy consists of some basic mechanisms. Can cooperate with group members and reproduce link mechanism model for toy motion by measurements.
		13th	Mechanical Engineering and Nature / Society (1): History of Mechanical Engineering and Coexistence with Nature	To explain the relationship between mechanical engineering and nature.
		14th	Mechanical Engineering and Nature / Society (2): History of Mechanical Engineering and Coexistence with Society	To explain the relationship between mechanical engineering and society.
		15th	Comprehensive exercise	Explain an application of mechanical engineering theory or technology into an industrial product.
		16th	No end term exams	

Evaluation Method and Weight (%)

	Effort attitude	work	Assignments	Presentation	Total
Subtotal	10	40	35	15	100
Basic Proficiency	0	20	20	5	45
Specialized Proficiency	0	5	0	5	10
Cross Area Proficiency	10	15	15	5	45

Akashi College		Year	2023	Course Title	Practice on Mechanical Engineering I B
Course Information					
Course Code	5134		Course Category	Specialized / Compulsory	
Class Format	Practical training		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials	Hand outs				
Instructor	KATOH Takahiro,OHMORI Shigetoshi				
Course Objectives					
(1) Fundamentals of engineering: Can explain the relationship between mechanical engineering and science. (2) Engineering ethics: Can explain the relationship between mechanical engineering and nature and society. (3) Creative ability: Can explain the meaning of creativity as an engineer. (4) Communication skills: Can write and speak so that others understand, and can listen to and understand others' opinions. (5) Basic skills: Can understand the characteristic concepts of 3D-CAD, which is also one of the communication tools of an engineer, and create models with it. (6) Engineering literacy: Can understand the instructions for practical training and follow them to safely operate measuring instruments and obtain data.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can explain the relationship between mechanical engineering and science, and apply scientific knowledge to engineering issues.		Can explain the relationship between mechanical engineering and science.		Cannot explain the relationship between mechanical engineering and science.
Achievement 2	Can explain the relationship between mechanical engineering and nature and society, and can apply it to one's thoughts and actions.		Can explain the meaning of creativity as an engineer.		Cannot explain the relationship between mechanical engineering and nature and society.
Achievement 3	Can explain the meaning of creativity as an engineer, and use others' creativity to create new value.		Learn basic abilities as a mechanical engineer.		Cannot explain the meaning of creativity as an engineer and will try to solve it only with one's own ideas.
Achievement 4	Can write and speak so that others understand, listen to others' opinions, and ask appropriate questions to deepen one's own and other's understanding.		Can write and speak so that others understand, and can listen to and understand others' opinions.		Cannot write or speak so that others understand. Also, cannot understand others' opinions.
Achievement 5	Can fully understand the characteristic concepts of 3D-CAD and create models freely with it		Understand the characteristic concepts of 3D-CAD and can create models of mechanical parts, etc.		Do not fully understand the characteristic concepts of 3D-CAD and cannot create models with it
Achievement 6	Can understand the instructions for practical training and follow them safely and properly to operate measuring equipment and obtain reliable data.		Understand the instructions for practical work and can follow them to safely operate measuring equipment and obtain data.		Do not understand the instructions for practical training and cannot follow them to operate measuring equipment properly and safely.
Assigned Department Objectives					
Teaching Method					
Outline	Students will gain basic abilities as a mechanical engineer by empirically learning the joy of manufacturing and ingenuity. They will understand the relationship between mechanical engineering and science and the coexistence of nature and society.				
Style	Students will gain knowledge in lectures held in an omnibus format, and experience it in practical training to deepen their understanding.				
Notice	In order to actively engage in the study of the future professional courses, students should learn a self-directed approach to learning. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☐ Active Learning		☒ Aided by ICT		☐ Applicable to Remote Class	
				☐ Instructor Professionally Experienced	
Course Plan					
			Theme	Goals	
2nd Semester r	3rd Quarter	1st	Assembly in 3D-CAD (1) (Omori)	Can understand assembly principles in 3D-CAD.	
		2nd	Assembly in 3D-CAD (2) (Omori)	Can understand assembly principles in 3D-CAD.	
		3rd	Drawing production using assembly (1) (Omori)	Can create drawings that contain assemblies.	
		4th	Drawing production using assembly (2) (Omori)	Can create drawings that contain assemblies.	
		5th	Drawing production using assembly (3) (Omori)	Can create drawings that contain assemblies.	
		6th	Drawing production using assembly (4) (Omori)	Can create drawings that contain assemblies.	
		7th	Disaster prevention contest: Guidance and DIG (katoh)	Can discuss within a group the impact of disasters such as earthquakes and floods from a map of Akashi City, and study possible countermeasures.	

		8th	Disaster prevention contest: Guidance and DIG (kato)	Can discuss within a group the impact of disasters such as earthquakes and floods from a map of Akashi City, and study possible countermeasures.
	4th Quarter	9th	Disaster prevention contest: Ideas conference, and robot production (kato)	Can hold an idea conference in teams about missions in the disaster field, and make prototype robots to complete them.
		10th	Disaster prevention contest: Pre-contest (kato)	Can clear the missions in the disaster field or identify problems using each team's prototype robot.
		11th	Disaster prevention contest: Robot improvement (kato)	Can propose improvement plans to the problems identified in the pre-contest and improve the robots in teams.
		12th	Disaster prevention contest: Presentation (kato)	Can present the ideas and features of robots produced by each team.
		13th	Disaster prevention contest: Contest and mutual evaluation (kato)	Can complete the missions in the disaster field by using the robots produced by each team and then reflect on their own effort within their team.
		14th	Factory tour	Attend a factory tour and can create a report.
		15th	Video learning	Watch video materials related to mechanical engineering and can write a post-study impression.
		16th	No final exam	

Evaluation Method and Weight (%)

	Behavior	Works	Issues / Reports	Total
Subtotal	20	40	40	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	0	40	40	80
Cross Area Proficiency	20	0	0	20

Akashi College		Year	2023	Course Title	Fundamentals of Engineering
Course Information					
Course Code	5135		Course Category	Specialized / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	1st	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials	The teacher will make and distribute the handout.				
Instructor	KUBOTA Ikumi				
Course Objectives					
1. Can concisely explain various phenomena using the vocabulary and expressions necessary to participate in lectures and experiment activities in the fields of science/math and engineering. 2. Can investigate and analyze the subject of interest and write logical sentences in simple Japanese.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can adequately use vocabulary and expressions used in the fields of mathematics/science and engineering to explain various phenomena.		Can adequately use vocabulary and expressions used in the fields of science/math and engineering to explain various phenomena, within the scope of the content covered in the classes.		Cannot use vocabulary and expressions used in the fields of science/math and engineering, and can barely explain various phenomena.
Achievement 2	Can investigate and analyze according to the plan, and write clear and consistent sentences about the series of contents related to the investigation.		Can investigate according to the plan and write a series of contents related to the investigation.		Cannot research or write according to the plans.
Assigned Department Objectives					
Teaching Method					
Outline	The objective of this course is to find and acquire the basic knowledge and vocabulary necessary to participate in our school's science/math and specialized subjects classes, and to be able to use the acquired knowledge in practice. In addition, the lessons are aimed at summarizing what you have researched and analyzed in simple Japanese.				
Style	Students will prepare a plan and conduct a survey to create a report in parallel with the acquisition of vocabulary and expressions. In other words, this class is positioned as a place for practicing not only improving students' Japanese proficiency, but also systematically performing tasks and writing cohesive sentences in Japanese.				
Notice	Students are required not only to participate in the lessons, but also to proceed with surveys and report writing according to their own plans. Students who miss 1/4 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☒ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester r	3rd Quarter	1st	Orientation Survey plan	Understand the class objectives and content. Can plan your research on the theme of what you want to research.	
		2nd	Expressions related to figures, units, and positions	Understand by looking at the expressions related to figures, units, and positions. Can also use expressions to explain things around you.	
		3rd	Expressions related to substances Creating a plan	Understand expressions related to substances. Can also use expressions to explain things around you. Can easily put together a survey plan in Japanese.	
		4th	Expressions that express properties and states	Understand expressions that express properties and states. Can also use expressions to explain things around you.	
		5th	Basic hand movements	Understand verbs that describe basic hand movements, and can use them to explain various movements.	
		6th	Basic movements for moving things	Understand verbs that describe the basic movements to move things, and can use them to explain various movements.	
		7th	Basic movements that change the shape of things Revise the plan	Understand verbs that describe the basic movements that change the shape of things, and can use them to explain various movements. Can revise the plan yourself with the advice of the teacher.	
		8th	Reflection	Can explain new things you found out in class, things that changed their minds, and how your Japanese abilities and skills have developed.	
	4th Quarter	9th	Sentence style	Understand the writing style used in reports and treatises, and be able to write sentences in a unified style when writing sentences.	

		10th	Difference between spoken and written language Objective expression	Understand the proper use of spoken and written Japanese. Can understand expressions suitable for reports and use them when writing sentences.
		11th	Structure of the report	Understand the structure of the report.
		12th	Creating a mini-report	Can conduct a survey based on the plan and summarize the survey in Japanese with an appropriate structure.
		13th	Creating a mini-report	Can conduct a survey based on the plan and summarize the survey in Japanese with an appropriate structure.
		14th	Creating a mini-report	Can conduct a survey based on the plan and summarize the survey in Japanese with an appropriate structure.
		15th	Creating a mini-report	Can modify the content, structure and Japanese of the report by yourself with reference to the advice of the teacher.
		16th	Reflection	Can explain new things you found out in class, things that changed their minds, and how your Japanese abilities and skills have developed.

Evaluation Method and Weight (%)

	Production work	Submission of assignments	Behavior	Total
Subtotal	70	20	10	100
Basic Proficiency	35	20	0	55
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	35	0	10	45

Akashi College		Year	2024		Course Title	Japanese II-1	
Course Information							
Course Code		6201		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 1	
Department		Mechanical Engineering		Student Grade		2nd	
Term		First Semester		Classes per Week		2	
Textbook and/or Teaching Materials		『精選論理国語』『精選文学国語』（明治書院）、『精選古典探究』（第一学習社）、『新訂総合国語便覧』（第一学習社）					
Instructor		TANGE Atsuko					
Course Objectives							
1) Understand the structure and development of logical texts (dissertations and commentaries) and can summarize them. 2) Can comprehend literary texts (novels and poems) according to their expression, and express their own opinions on the characteristics of that expression. 3) Correctly understand the kanji and phrases used on a daily basis and can use them.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Understand the structure and development of logical texts (dissertations and commentaries), and can summarize them and express their opinions.		Understand the structure and development of logical texts (dissertations and commentaries) and can summarize them.		Cannot summarize logical texts (dissertations and commentaries) regarding their structure and development without the aid of keywords, etc.	
Achievement 2		Can comprehend literary texts (novels and poems) according to their expressions on the basis of their historical background and knowledge thereof, and express their opinions on the characteristics of those expressions.		Can comprehend literary texts (novels and poems) according to their expressions, and understand the characteristics of those expressions.		Only understand the general content of literary texts (novels and poems).	
Achievement 3		Correctly understand the kanji and phrases used on a daily basis, and can use them freely in everyday life and study.		Are interested in the kanji and phrases used on a daily basis, and actively try to acquire them.		Do not fully understand the kanji and phrases used on a daily basis.	
Assigned Department Objectives							
Teaching Method							
Outline		To acquire basic knowledge of the Japanese language through the reading of various texts such as modern review papers, novels, poetry, and classical texts. To develop logical reading and text expression skills and make use of them linguistically, in an organized and sensitivity way.					
Style		Classes will be basically held in a lecture style, but there will be quizzes and assignments from time to time.					
Notice		Students are required to clarify questions through pre-study, and then focus on the class with a motivated attitude. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning							
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced	
Course Plan							
			Theme		Goals		
1st Semester r	1st Quarter	1st	Guidance Reading comprehension of What is learning?		Understand how classes will be taught and what to prepare.		
		2nd	Reading comprehension of What is learning?		Can capture the structure of the text and properly understand the content.		
		3rd	Reading comprehension of What is learning?		Can understand the content and express one's opinion.		
		4th	Reading comprehension of The Moon Over the Mountain (Sangetsuki)		Can properly understand the content according to the expression.		
		5th	Reading comprehension of The Moon Over the Mountain (Sangetsuki)		Understand the personality of the story's main character based on the sources.		
		6th	Reading comprehension of The Moon Over the Mountain (Sangetsuki)		Understand the development of the story, paying attention to the expression and structure.		
		7th	Reading comprehension of The Moon Over the Mountain (Sangetsuki)		Understand the development of the story, paying attention to the expression and structure.		
		8th	Reading comprehension of The Moon Over the Mountain (Sangetsuki)		Understand the logical structure using binary opposition, which is a characteristic of the text.		
	2nd Quarter	9th	Reading comprehension of Kokonchomonju		Properly understand the phrases and expression used in the text.		
		10th	Reading comprehension of Hojoki		Understand the evaluation of literary history and grasp the meaning of the sentence.		
		11th	Reading comprehension of Hojoki		Properly understand the phrases and expression used in the text.		
		12th	Reading comprehension of Hojoki		Can explain the subject and features of the work.		
		13th	Reading comprehension of Tanka and Haiku		Can learn about the background of the work and the theory of the artist. and appreciate the work.		

		14th	Reading comprehension of Tanka and Haiku	Can explain the subject and characteristics of the work.
		15th	Reading comprehension of Tanka and Haiku	Can understand the content and express one's opinion.
		16th	Final exam	

Evaluation Method and Weight (%)					
	Examination	Quizes	Behavior	Other	Total
Subtotal	80	10	10	0	100
Basic Proficiency	80	10	10	0	100
Specialized Proficiency	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0

Akashi College		Year	2024		Course Title	Japanese II-2	
Course Information							
Course Code		6202		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 1	
Department		Mechanical Engineering		Student Grade		2nd	
Term		Second Semester		Classes per Week		2	
Textbook and/or Teaching Materials		『精選論理国語』『精選文学国語』（明治書院）、『精選古典探究』（第一学習社）、『新訂総合国語便覧』（第一学習社）					
Instructor		TANGE Atsuko					
Course Objectives							
1) Understand the structure and development of logical texts (dissertations and commentaries) and can summarize them. 2) Can comprehend literary texts (novels and diaries) according to their expression, and express their own opinions on the characteristics of that expression. 3) To elaborate texts and reports, create sentences that devise a logical structure based on classified information. To be able to transmit information effectively.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Understand the structure and development of logical texts (dissertations and commentaries), and can summarize them and express their opinions.		Understand the structure and development of logical texts (dissertations and commentaries) and can summarize them.		Cannot summarize logical texts (dissertations and commentaries) regarding their structure and development without the aid of keywords, etc.	
Achievement 2		Can comprehend literary texts (novels and diaries) according to their expressions on the basis of their historical background and knowledge thereof, and express their opinions on the characteristics of those expressions.		Can comprehend literary texts (novels and diaries) according to their expressions, and understand the characteristics of those expressions.		Only understand the general content of literary texts (novels and diaries).	
Achievement 3		Can well form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.		Can form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.		Cannot form clear opinions and conclusions, and organize his ideas and develop them logically, using empirical sentences.	
Assigned Department Objectives							
Teaching Method							
Outline		To acquire basic knowledge of the Japanese language through the reading of various texts such as modern review papers, novels, poetry, and classical texts. To develop logical reading and text expression skills and make use of them linguistically, in an organized and sensitivity way.					
Style		Classes will be basically held in a lecture style, but there will be quizzes and assignments from time to time.					
Notice		Students are required to clarify questions through pre-study, and then focus on the class with a motivated attitude. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning							
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced	
Course Plan							
			Theme		Goals		
2nd Semester	3rd Quarter	1st	Course guidance Reading comprehension of Why study science?		Properly understand the phrases and expression used in the text.		
		2nd	Reading comprehension of Why study science?		Can capture the structure of the text and properly understand the content.		
		3rd	Reading comprehension of Why study science?		Can capture the structure of the text and properly understand the content.		
		4th	Reading comprehension of Why study science?		Can understand the content and express one's opinion.		
		5th	Reading comprehension of Wakamurasaki (The Tale of Genji)		Understand the evaluation of literary history and grasp the meaning of the sentence.		
		6th	Reading comprehension of Wakamurasaki (The Tale of Genji)		Can interpret and answer questions from the textbook appropriately.		
		7th	Reading comprehension of Wakamurasaki (The Tale of Genji)		Can explain the subject and features of the work.		
		8th	Reading comprehension of Wakamurasaki (The Tale of Genji)		Understand the subject matter and be able to express one's opinion on the work		
	4th Quarter	9th	Reading comprehension of Genji-no-gojuyomaki (Sarashina Diary)		Can interpret and answer questions from the textbook appropriately.		
		10th	Reading comprehension of Genji-no-gojuyomaki (Sarashina Diary)		Can explain the subject and features of the work.		
		11th	Reading comprehension of Fables		Can interpret and answer questions from the textbook appropriately.		

		12th	Reading comprehension of Fables	Can interpret and answer questions from the textbook appropriately.
		13th	Reading comprehension of Introduction to Ink Painting	Properly understand the phrases and expression used in the text.
		14th	Reading comprehension of Introduction to Ink Painting	Can capture the structure of the text and properly understand the content.
		15th	Reading comprehension of Introduction to Ink Painting	Can understand the content and express one's opinion.
		16th	End term exams	

Evaluation Method and Weight (%)					
	Examination	Quizes	Behavior	Other	Total
Subtotal	80	10	10	0	100
Basic Proficiency	80	10	10	0	100
Specialized Proficiency	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0

Akashi College		Year	2024	Course Title	Introduction to Global Studies
Course Information					
Course Code	6203		Course Category	General / Compulsory	
Class Format	Seminar		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials	No text book, hands out.				
Instructor					
Course Objectives					
1) To understand and realize that there are various cultures and history in the world (and even in Japan), and be able to see Japanese culture / Japanese nation from a relative perspective. 2) To understand how communication in the international community is carried out. To be able to determine specific goals and decide what kind of communication attitude or level is necessary. 3) To consider what is required to become a cosmopolitan, to become an international engineer and to form their own opinions.					
Rubric					
	Excellent		Good		Insufficient
1) Ethnic and culture	Understand from a relative viewpoint that diverse cultures coexist, both in Japan and abroad.		Understand that diverse cultures coexist in Japan.		Do not understand the concepts of ethnic and culture.
2) International communication	Understand the necessity of international and intercultural communication and its present situation. The student can critically approach his/her self-problems of and concretely imagine the communication skills they need to develop.		Understand the international and intercultural communication present situation.		The students can't understand the necessity of international and intercultural communication or its present situation.
3) Form opinions	Able to consider what is required to become a cosmopolitan, to become an international engineer, to form their own opinions and to debate their opinions.		Able to consider what is required to become a cosmopolitan, to become an international engineer, to form their own opinions.		Not able to consider what is required to become a cosmopolitan, to become an international engineer, to form their own opinions.
Assigned Department Objectives					
Teaching Method					
Outline	Through the study of a number of topics, the students will understand what is "internationalization" and "globalization." Also, recognize the problems associated with internationalization and reflect on how to deal with it. In various ways, the students will acquire the knowledge to become a "cosmopolitan" and to live in a "diverse" society.				
Style	Alternately there will be lectures and group discussion about several themes.				
Notice	Each student should participate positively in the classes. Not only "knowing" but also "thinking/worrying" through the discussion conducted in class. Lectures are basically conducted in English. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester	3rd Quarter	1st	What is an international person?	Think about what the words "international perspective," "international sense," "act globally" refer to concretely, and increase problem awareness regarding this topic.	
		2nd	Ethnic and culture	Think about how "XXX people" can be defined, understand the concept of "ethnic group." Comprehend the image of nationalism.	
		3rd	The role of language	Understand the characteristics of "word" which is a primary tool for communication. Think about the aspects of communication between people with different native languages.	
		4th	Internationalization and English	Understand the current situation of English as "international language." Form your own opinion on how to communicate with non-native English speakers.	
		5th	Internationalization and Multilingualization	Through discussion with your colleagues think about and form your own opinion about what kind of element is required to establish international communication.	
		6th	Problems surrounding the coexistence of ethnicity and culture(1)	Deepen your understanding of minority groups' issues such as Korean residents in Japan and think about the coexistence of multiple ethnic groups and cultures.	

		7th	Problems surrounding the coexistence of ethnicity and culture(2)	Deepen your understanding of minority groups' issues such as Korean residents in Japan and think about the coexistence of multiple ethnic groups and cultures.
		8th	Ethnicity in Japanese Society	A lecture will be given. Review the first half of the lecture and organize your understanding and awareness of the issues. A report is also assigned.
	4th Quarter	9th	Problems surrounding the coexistence of ethnicity and culture(3)	Deepen your understanding of minority groups' issues such as Korean residents in Japan and think about the coexistence of multiple ethnic groups and cultures.
		10th	International Order and Security(1)	Understand why international conflicts occur and how they can be prevented and resolved. Also, understand the current state of armaments in the world.
		11th	International Order and Security(2)	Understand why international conflicts occur and how they can be prevented and resolved. Also, understand the current state of armaments in the world.
		12th	International Order and Security(3)	Understand why international conflicts occur and how they can be prevented and resolved. Also, understand the current state of armaments in the world.
		13th	Global economy and international business(1)	Understand the background of across borders economic activities. Also, understand the problems that companies face when working internationally.
		14th	Global economy and international business(2)	Understand the background of across borders economic activities. Also, understand the problems that companies face when working internationally.
		15th	Conclusion: What is an international person?	To review the content learnt through discussion and to confirm each other "cosmopolitan" image.
		16th	End term Exam	

Evaluation Method and Weight (%)

	Tests	Presentation	Assignments	Total
Subtotal	60	20	20	100
Basic Skills	60	20	20	100
Specialized Skills	0	0	0	0
Cross Field Skills	0	0	0	0

Akashi College		Year	2024		Course Title	Public
Course Information						
Course Code	6204			Course Category	General / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	2nd	
Term	First Semester			Classes per Week	2	
Textbook and/or Teaching Materials	谷田部玲生他『高等学校 公共』第一学習社。					
Instructor						
Course Objectives						
1. Accurately understand the basic facts about various phenomena that constitute modern society. 2. Objectively understand what responsibilities we have and roles we play in order to address the challenges and issues that change with the times. 3. Through exchanging opinions with other students, understand diverse views and the importance of thinking about things in multifaceted ways, and increase their ability to accept other people's different opinions.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	Thoroughly understand the basic knowledge regarding the various issues of the modern age.		Have basic knowledge regarding the various issues of the modern age.		Do not have sufficient basic knowledge regarding the various issues of the modern age.	
Achievement 2	Can objectively explain the roles that people in modern society have been expected to play in order to address its issues and problems.		Can understand the roles that people in modern society have been expected to play in order to address its issues and problems.		Do not have sufficient understanding of the roles that people in modern society have been expected to play in order to its address issues and problems.	
Achievement 3	Can proactively consider the various issues of the modern age and discuss them based on their own opinions.		Can proactively consider modern various issues.		Cannot proactively consider the various issues of the modern age, due to insufficient understanding of them.	
Assigned Department Objectives						
Teaching Method						
Outline	In this course, students learn the basic knowledge about various phenomena that constitute modern society, and at the same time consider what we can do about the issues and problems that change with the times. In addition, the aim is to create opportunities to raise students' awareness of various issues in the public spaces in which we go about our daily lives, and to cultivate their ability to think about them.					
Style	The teaching will be based on taking notes from the blackboard and using textbooks and handouts. The classes will consist of having the students think about things, exchange opinions, present (share) their ideas, and listen to the teacher explain the concepts, etc. At the beginning of each class, the students will think individually about what "the various issues of the modern age" are, how to address them, etc. Then, they will exchange opinions with each other (in groups), and present and share their ideas. After that, the teacher will explain matters such as the policies that are actually being implemented in society, and the concepts needed to understand the issues.					
Notice	Freely exchanging opinions will help the students develop bidirectional communication skills that will enable them to accept other people's ideas and convey their own. It will also help them develop a bird's-eye view of society and cultivate their problem-solving skills. In addition, it will help them see that different opinions exist, and enhance their ability to accept and relate to them. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
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	Guidance: What are modern society's problems and issues?	Learn about what is necessary for thinking about modern society's problems and issues.		
		2nd	Theme 1: The significance and roles of laws and norms	Understand the roles that laws and norms play in modern society, and the ones they are expected to.		
		3rd	Theme 2: Contracts and consumers' rights and responsibilities	Understand the conditions for a contract to be agreed to between equal parties.		
		4th	Theme 3: Significance of participation in the judicial process	Consider the significance of and responsibilities regarding public participation in the judicial process.		
		5th	Theme 4: Political participation and forming fair public opinion	Consider the significance of and responsibilities regarding public participation in politics.		
		6th	Theme 5: International community and national sovereignty	Understand the commonalities and differences between the international and domestic communities.		
		7th	Theme 6: Japan's security and defense	Consider what will ensure security and peace for Japan.		
		8th	Review of the first half of the first semester (1st Q)	Review the content from weeks 1-7.		

	2nd Quarter	9th	Theme 7: Changes in the international community and Japan's roles	Learn about international peace and the roles Japan has been playing.
		10th	Theme 8: Employment and labor issues	Understand the changes and issues in the current working environment in Japan.
		11th	Theme 9: Social change and attitudes to work	Understand that there is a close relationship between social change and how people work.
		12th	Theme 10: Functions and limitations of a market economy	Understand the functions of markets and the importance of competition.
		13th	Theme 11: What finance does	Understand the mechanisms of finance and what financial institutions do.
		14th	Theme 12: Public finance's roles and social security	Learn about how a nation's public finances are closely related to the lives of its people.
		15th	Theme 13: Economic globalization	Understand the mechanisms of increasingly globalizing trade and finance.
		16th	Final exam	Take a written exam.

Evaluation Method and Weight (%)

	Examination	Short test	Ordinary score (assignment)	Behavior	Portfolio	Other	Total
Subtotal	30	30	40	0	0	0	100
Basic Proficiency	30	30	40	0	0	0	100
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College		Year	2024	Course Title	Mathematics II A-1
Course Information					
Course Code	6205		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 2	
Department	Mechanical Engineering		Student Grade	2nd	
Term	First Semester		Classes per Week	4	
Textbook and/or Teaching Materials	高遠 節夫 他 著「新微分積分 I」大日本図書 高遠 節夫 他 著「新微分積分 I 問題集」大日本図書（参考書 数学Ⅲ LEGEND 東京書籍）				
Instructor	MATSUMIYA Atusi,				
Course Objectives					
1. 関数の極限、微分係数の意味、導関数の定義、積・商の導関数の公式、合成関数、逆三角関数を理解し、いろいろな関数の導関数を求めることができる。 2. 関数の増減表を書いて、極値を求め、グラフの概形をかくことができる。極値を利用して、関数の最大値・最小値を求めることができる。また 2 次の導関数を利用して、グラフの凹凸を調べることができる。関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることができる。 3. 定積分の定義と微積分の基本定理を理解し、簡単な定積分を求めることができる。不定積分の定義を理解し、簡単な不定積分を求めることができる。また置換積分および部分積分を用いて、不定積分や定積分を求めることができる。 4. 分数関数・無理関数・三角関数・指数関数・対数関数の不定積分・定積分を求めることができ、簡単な場合について、曲線で囲まれた図形の面積や曲線の長さ、立体の体積を定積分で求めることができる。					
Rubric					
	理想的な到達レベルの目安		標準的な到達レベルの目安		未到達レベルの目安
評価項目 1	関数の極限、微分係数の意味、導関数の定義、積・商の導関数の公式、合成関数、逆三角関数を理解し、いろいろな関数の導関数を求めることが十分できる。		関数の極限、微分係数の意味、導関数の定義、積・商の導関数の公式、合成関数、逆三角関数を理解し、いろいろな関数の導関数を求めることができる。		関数の極限、微分係数の意味、導関数の定義、積・商の導関数の公式、合成関数、逆三角関数を理解し、いろいろな関数の導関数を求めることができない。
評価項目 2	関数の増減表を書いて、極値を求め、グラフの概形をかくことが十分できる。極値を利用して、関数の最大値・最小値を求めることが十分できる。また 2 次の導関数を利用して、グラフの凹凸を調べることが十分できる。関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることが十分できる。		関数の増減表を書いて、極値を求め、グラフの概形をかくことができる。極値を利用して、関数の最大値・最小値を求めることができる。また 2 次の導関数を利用して、グラフの凹凸を調べることができる。関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることができる。		関数の増減表を書いて、極値を求め、グラフの概形をかくことができない。極値を利用して、関数の最大値・最小値を求めることができない。また 2 次の導関数を利用して、グラフの凹凸を調べることができない。関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることができない。
評価項目 3	定積分の定義と微積分の基本定理を理解し、簡単な定積分を求めることが十分できる。不定積分の定義を理解し、簡単な不定積分を求めることが十分できる。また置換積分および部分積分を用いて、不定積分や定積分を求めることが十分できる。		定積分の定義と微積分の基本定理を理解し、簡単な定積分を求めることができる。不定積分の定義を理解し、簡単な不定積分を求めることができる。また置換積分および部分積分を用いて、不定積分や定積分を求めることができる。		定積分の定義と微積分の基本定理を理解し、簡単な定積分を求めることができない。不定積分の定義を理解し、簡単な不定積分を求めることができない。また置換積分および部分積分を用いて、不定積分や定積分を求めることができない。
評価項目 4	分数関数・無理関数・三角関数・指数関数・対数関数の不定積分・定積分を求めることが十分でき、簡単な場合について、曲線で囲まれた図形の面積や曲線の長さ、立体の体積を定積分で求めることが十分できる。		分数関数・無理関数・三角関数・指数関数・対数関数の不定積分・定積分を求めることができ、簡単な場合について、曲線で囲まれた図形の面積や曲線の長さ、立体の体積を定積分で求めることができる。		分数関数・無理関数・三角関数・指数関数・対数関数の不定積分・定積分を求めることができず、簡単な場合について、曲線で囲まれた図形の面積や曲線の長さ、立体の体積を定積分で求めることができない。
Assigned Department Objectives					
Teaching Method					
Outline	微分積分の基本概念及びそこから発展したいろいろな計算手法を習得し、専門分野での応用の際のさまざまな事象の解析に必要な素養を獲得する。				
Style	予習を前提として教科書に沿って講義する。また問題演習を行う。講義中に理解度の確認をするために質問をする。講義では集中して理解に努め、予習でわからなかったことや講義で理解できなかったことは放置せずに質問するようにして下さい。その日のうちに必ず復習し教科書と問題集にある問題を解くように心がけること。ICTを活用した授業をすることがある。確認のため予告なく小試験を行うことがあります。そのためにも日頃からよく勉強しておくようにしてください。				
Notice	試験を50%、課題等の提出物を20%、発表および平素の授業への取り組み状況を30%として総合的に評価し60点以上を合格とする。ただし、この割合で評価点をつけるのは学年末であり、途中までの累積評価の割合は暫定的な割合で評価し必ずしも上記の割合にならないことがある。課題等や発表などがよく出来ていれば割合以上の評価を与えることもある。いずれかの週でCBTを行う。合格の対象としない欠席条件(割合) 1/3以上の欠課				
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	関数の極限と導関数	関数のグラフや公式をまとめることができる。	
		2nd	関数の極限と導関数	簡単な場合について、関数の極限を求めることができる。	
		3rd	関数の極限と導関数	微分係数の意味や、導関数の定義を理解し、導関数を求めることができる。	
		4th	関数の極限と導関数	積・商の導関数の公式を用いて、導関数を求めることができる。合成関数の導関数を求めることができる。	

		5th	関数の極限と導関数	三角関数・指数関数の導関数を求めることができる。
		6th	いろいろな関数の導関数	逆関数の導関数を理解し、対数関数や逆三角関数の導関数を求めることができる。
		7th	いろいろな関数の導関数	関数の連続について理解し、応用問題を解くことができる。
		8th	いろいろな関数の導関数	中間値の定理を理解し、応用問題を解くことができる。
	2nd Quarter	9th	関数の変動	簡単な場合について、関数の接線や法線の方程式を求めることができる。
		10th	関数の変動	関数の増減表を書いて、極値を求め、グラフの概形をかくことができる。
		11th	関数の変動	極値を利用して、関数の最大値・最小値を求めることができる。
		12th	いろいろな応用	高次導関数を求めることができる。2次の導関数を利用して、グラフの凹凸を調べることができる。
		13th	いろいろな応用	関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることができる。
		14th	いろいろな応用	速度・加速度を理解し、応用問題を解くことができる。
		15th	いろいろな応用	平均値の定理やロピタルの定理を理解し利用することができる。
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	発表	相互評価	態度	ポートフォリオ	その他	Total
Subtotal	0	0	0	0	0	0	0
基礎的能力	0	0	0	0	0	0	0
専門的能力	0	0	0	0	0	0	0
分野横断的能力	0	0	0	0	0	0	0

Akashi College		Year	2024	Course Title	Mathematics II A-2
Course Information					
Course Code	6206		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 2	
Department	Mechanical Engineering		Student Grade	2nd	
Term	Second Semester		Classes per Week	4	
Textbook and/or Teaching Materials	高遠 節夫 他 著「新微分積分Ⅰ」大日本図書 高遠 節夫 他 著「新微分積分Ⅰ問題集」大日本図書（参考書 数学Ⅲ LEGEND 東京書籍）				
Instructor	MATSUMIYA Atusi,OMODA Yasuhiro				
Course Objectives					
1. 関数の極限、微分係数の意味、導関数の定義、積・商の導関数の公式、合成関数、逆三角関数を理解し、いろいろな関数の導関数を求めることができる。 2. 関数の増減表を書いて、極値を求め、グラフの概形をかくことができる。極値を利用して、関数の最大値・最小値を求めることができる。また2次の導関数を利用して、グラフの凹凸を調べることができる。関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることができる。 3. 定積分の定義と微積分の基本定理を理解し、簡単な定積分を求めることができる。不定積分の定義を理解し、簡単な不定積分を求めることができる。また置換積分および部分積分を用いて、不定積分や定積分を求めることができる。 4. 分数関数・無理関数・三角関数・指数関数・対数関数の不定積分・定積分を求めることができ、簡単な場合について、曲線で囲まれた図形の面積や曲線の長さ、立体の体積を定積分で求めることができる。					
Rubric					
		理想的な到達レベルの目安	標準的な到達レベルの目安	未到達レベルの目安	
評価項目1		関数の極限、微分係数の意味、導関数の定義、積・商の導関数の公式、合成関数、逆三角関数を理解し、いろいろな関数の導関数を求めることが十分できる。	関数の極限、微分係数の意味、導関数の定義、積・商の導関数の公式、合成関数、逆三角関数を理解し、いろいろな関数の導関数を求めることができる。	関数の極限、微分係数の意味、導関数の定義、積・商の導関数の公式、合成関数、逆三角関数を理解し、いろいろな関数の導関数を求めることができない。	
評価項目2		関数の増減表を書いて、極値を求め、グラフの概形をかくことが十分できる。極値を利用して、関数の最大値・最小値を求めることが十分できる。また2次の導関数を利用して、グラフの凹凸を調べることが十分できる。関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることが十分できる。	関数の増減表を書いて、極値を求め、グラフの概形をかくことができる。極値を利用して、関数の最大値・最小値を求めることができる。また2次の導関数を利用して、グラフの凹凸を調べることができる。関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることができる。	関数の増減表を書いて、極値を求め、グラフの概形をかくことができない。極値を利用して、関数の最大値・最小値を求めることができない。また2次の導関数を利用して、グラフの凹凸を調べることができない。関数の媒介変数表示を理解し、媒介変数を利用して、その導関数を求めることができない。	
評価項目3		定積分の定義と微積分の基本定理を理解し、簡単な定積分を求めることが十分できる。不定積分の定義を理解し、簡単な不定積分を求めることが十分できる。また置換積分および部分積分を用いて、不定積分や定積分を求めることが十分できる。	定積分の定義と微積分の基本定理を理解し、簡単な定積分を求めることができる。不定積分の定義を理解し、簡単な不定積分を求めることができる。また置換積分および部分積分を用いて、不定積分や定積分を求めることができる。	定積分の定義と微積分の基本定理を理解し、簡単な定積分を求めることができない。不定積分の定義を理解し、簡単な不定積分を求めることができない。また置換積分および部分積分を用いて、不定積分や定積分を求めることができない。	
評価項目4		分数関数・無理関数・三角関数・指数関数・対数関数の不定積分・定積分を求めることができ、簡単な場合について、曲線で囲まれた図形の面積や曲線の長さ、立体の体積を定積分で求めることが十分できる。	分数関数・無理関数・三角関数・指数関数・対数関数の不定積分・定積分を求めることができ、簡単な場合について、曲線で囲まれた図形の面積や曲線の長さ、立体の体積を定積分で求めることができる。	分数関数・無理関数・三角関数・指数関数・対数関数の不定積分・定積分を求めることができず、簡単な場合について、曲線で囲まれた図形の面積や曲線の長さ、立体の体積を定積分で求めることができない。	
Assigned Department Objectives					
Teaching Method					
Outline	微分積分の基本概念及びそこから発展したいろいろな計算手法を習得し、専門分野での応用の際のさまざまな事象の解析に必要な素養を獲得する。				
Style	予習を前提として教科書に沿って講義する。また問題演習を行う。講義中に理解度の確認をするために質問をする。講義では集中して理解に努め、予習でわからなかったことや講義で理解できなかったことは放置せずに質問するようにして下さい。その日のうちに必ず復習し教科書と問題集にある問題を解くように心がけること。ICTを活用した授業をすることがある。確認のため予告なく小試験を行うことがあります。そのためにも日頃からよく勉強しておくようにしてください。				
Notice	試験を50%、課題等の提出物を20%、発表および平素の授業への取り組み状況を30%として総合的に評価し60点以上を合格とする。ただし、この割合で評価点をつけるのは学年末であり、途中までの累積評価の割合は暫定的な割合で評価し必ずしも上記の割合にならないことがある。課題等や発表などがよく出来ていれば割合以上の評価を与えることもある。いずれかの週でCBTを行う。合格の対象としない欠席条件(割合) 1/3以上の欠課				
Characteristics of Class / Division in Learning					
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class ☐ Instructor Professionally Experienced	
Course Plan					
			Theme	Goals	
2nd Semester r	3rd Quarter	1st	不定積分と定積分	不定積分の定義を理解し、簡単な不定積分を求めることができる。	
		2nd	不定積分と定積分	定積分の定義を理解し、定義に従って定積分を求めることができる。	
		3rd	不定積分と定積分	微分積分法の基本定理を理解し、簡単な定積分を求めることができる。	
		4th	不定積分と定積分	簡単な定積分の計算をすることができる。いろいろな不定積分の公式を活用することができる。	

		5th	積分の計算	置換積分および部分積分を用いて、不定積分や定積分を求めることができる。
		6th	積分の計算	分数関数・無理関数の不定積分・定積分を求めることができる。
		7th	積分の計算	三角関数・指数関数・対数関数の不定積分・定積分を求めることができる。
		8th	面積・曲線の長さ・体積	簡単な場合について、曲線で囲まれた図形の面積を定積分で求めることができる。
	4th Quarter	9th	面積・曲線の長さ・体積	簡単な場合について、曲線の長さを定積分で求めることができる。簡単な場合について、立体の体積や回転体の体積を定積分で求めることができる。
		10th	いろいろな応用	媒介変数表示による図形を理解し、媒介変数表示による図形の面積や曲線の長さなどを求めることができる。
		11th	いろいろな応用	極座標について理解し、極座標による図形の面積や曲線の長さを求めることができる。
		12th	いろいろな応用	広義積分について理解し、広義積分を求めることができる。
		13th	いろいろな応用	変化率と積分について理解し、応用問題を解くことができる。
		14th	微分方程式	応用問題から微分方程式の意味を理解し、簡単な変数分離形の微分方程式などを解くことができる。
		15th	微分方程式	簡単な同時形，1 階線形微分方程式を解くことができる。
		16th	期末試験	

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

Akashi College		Year	2024		Course Title	Mathematics II B-1	
Course Information							
Course Code		6207		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 1	
Department		Mechanical Engineering		Student Grade		2nd	
Term		First Semester		Classes per Week		2	
Textbook and/or Teaching Materials		Linear Algebra (Dai Nihon Tosho)					
Instructor		TAKATA Isao					
Course Objectives							
1. Can compute vectors and apply them to shapes. 2. Understand the definition of matrices, and can perform matrix computations.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Can fully compute vectors and apply them to shapes.		Can compute vectors and apply them to shapes.		Cannot compute vectors and apply them to shapes.	
Achievement 2		Fully understand the definition of matrices, and can fully perform matrix computations.		Understand the definition of matrices, and can perform matrix computations.		Do not understand the definition, and cannot perform matrix computations.	
Assigned Department Objectives							
Teaching Method							
Outline		Classes and exercises will be given on the basics of linear algebra, which is used in a wide range of fields. The goal is to become able to relate computation to geometry by using equations for shapes in a plane or in space					
Style		There will be lecture-style classes, tests at appropriate times, and report assignments.					
Notice		Review your work before class. Do not leave anything you do not understand unanswered, but ask questions. Study independently by using problem collections. CBT test will be given in one of the weeks. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
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	Planar Vectors		Can perform calculations using the basic laws of vector arithmetic.		
		2nd	Planar Vectors		Can compute the inner product of vectors.		
		3rd	Planar Vectors		Can perform the computations using the component representation of plane vectors.		
		4th	Space Vectors		Can perform the computations using the component representation of space vectors.		
		5th	Space Vectors		Can calculate the area of a parallelogram as a vector.		
		6th	Space Vectors		Can understand parallel and perpendicular conditions and use them in calculations.		
		7th	Space Vectors		Can find the equation of a line in space.		
		8th	Space Vectors		Can find the equation of a plane in space.		
	2nd Quarter	9th	Space Vectors		Can find and use the outer product of vectors.		
		10th	Space Vectors		Can find the distance between a point and a plane.		
		11th	Space Vectors		Can find the equation of a spherical surface.		
		12th	Matrices		Can calculate the sum, difference, and product of matrices.		
		13th	Matrices		Can calculate the sum, Can use the distribution and combination laws of matrices.		
		14th	CBT test		The CBT test will be used to check for retention.		
		15th	Summary		Review of the total.		
		16th	Exam		Confirmation of the studies.		
Evaluation Method and Weight (%)							
	Examination	CBT Test	Review Test	Assignments	Attendance points	Total	
Subtotal	25	20	25	15	15	100	
Basic Proficiency	25	20	25	15	15	100	
Specialized Proficiency	0	0	0	0	0	0	
Cross Area Proficiency	0	0	0	0	0	0	

Akashi College		Year	2024		Course Title	Mathematics II B-2	
Course Information							
Course Code		6208		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 1	
Department		Mechanical Engineering		Student Grade		2nd	
Term		Second Semester		Classes per Week		2	
Textbook and/or Teaching Materials		Linear Algebra (Dai Nihon Tosho)					
Instructor		TAKATA Isao					
Course Objectives							
1. Can calculate matrices and solve linear systems of equations. 2. Can understand the definition and properties of determinants and find the value of basic determinants.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Can compute matrices and solve simultaneous linear equations satisfactorily.		Can compute matrices and solve simultaneous linear equations.		Cannot compute matrices and cannot solve simultaneous linear equations.	
Achievement 2		Can understand the definition and properties of determinants, and obtain the values for basic determinants satisfactorily.		Can understand the definition and properties of determinants and find the values of basic determinants.		Cannot understand the definition and properties of determinants and cannot find the values of basic determinants.	
Assigned Department Objectives							
Teaching Method							
Outline		This course provides lectures and exercises on the fundamentals of linear algebra, which is used in a wide range of fields. The goal is to be able to relate computation to geometry using equations of figures in the plane and in space.					
Style		Students are asked to prepare for the class with video clips according to the syllabus. Students will be asked to study in groups during class to check their level of understanding.					
Notice		Review your work before class. Do not leave anything you do not understand unanswered, but ask questions. Study independently by using problem collections. CBT will be given in one of the weeks. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning							
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced	
Course Plan							
			Theme		Goals		
2nd Semester	3rd Quarter	1st	Matrix		Can understand and use zero and unit matrices.		
		2nd	Matrix		Can find and use transpose and inverse matrices.		
		3rd	Definition and properties of determinant		Can compute second-order determinants and use Cramer's formula.		
		4th	Definition and properties of determinant		Can understand the definition of determinant and compute simple determinants.		
		5th	Definition and properties of determinant		Can understand the properties of determinants and use them in calculations.		
		6th	Application of determinant		Can expand determinants.		
		7th	Application of determinant		Can perform a variety of determinant calculations.		
		8th	Application of determinant		Can use the cosine factor to find the inverse matrix.		
	4th Quarter	9th	Application of determinant		Can factorize using determinants.		
		10th	Application of determinant		Can understand and use matrix elimination methods.		
		11th	Linear equations and matrices		Can solve simultaneous linear equations using the elimination method.		
		12th	Linear equations and matrices		Can find the inverse matrix using the elimination method.		
		13th	Linear equations and matrices		Can determine the rank of a matrix.		
		14th	CBT test		The CBT test will be used to check for retention.		
		15th	Summary		Review of the total.		
		16th	Exam		Confirmation of the studies.		
Evaluation Method and Weight (%)							
	Examination	CBT Test	Review Test	Assignments	Attendance points	Total	
Subtotal	25	20	25	15	15	100	
Basic Proficiency	25	20	25	15	15	100	
Specialized Proficiency	0	0	0	0	0	0	

Cross Area Proficiency	0	0	0	0	0	0
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Akashi College		Year	2024		Course Title	Science II A-1
Course Information						
Course Code		6209		Course Category	General / Compulsory	
Class Format		Lecture		Credits	School Credit: 1	
Department		Mechanical Engineering		Student Grade	2nd	
Term		First Semester		Classes per Week	2	
Textbook and/or Teaching Materials		國友正和ほか著 総合物理 1 -力と運動・熱- (数研出版)数研出版編集部編 リードα 物理基礎・物理 (数研出版)				
Instructor		TAKEUCHI Masahiro				
Course Objectives						
1. Explain problems involving various physical quantities. 2. Present various physical quantities to others in a easy-to-understand manner.						
Rubric						
		Excellent		Good		Insufficient
Achievement 1		Explain problems involving various physical quantities.		Solve computational problems involving various physical quantities.		Inability to solve computational problems involving various physical quantities
Achievement 2		Present various physical quantities to others in an easy-to understand manner.		Present various physical quantities.		Inability to present various physical quantities
Assigned Department Objectives						
Teaching Method						
Outline		Learn physics dynamics which is the basis of engineering. The study of dynamics is divided into four topics. In the first year, the students will learn until constant velocity circular motion (middle of dynamics topic 4). The students are required to acquire a tremendous amount of knowledge out a difficult topic, to be perseverant and don't give up. Dynamics 1: To understand the vector concept. The contents used here are speed and acceleration, topics learned at junior high school. To explain the components of a vector is necessary to understand the trigonometric functions. Also, will be guided to handle significant figures and units. The students will learn how to study by themselves through daily tasks, such as self-learning, doing assignments (task preparation research notes), etc. Dynamics 2: to understand the relation between cause and consequence in physical phenomena. For example, acceleration (learned in dynamics 1) is the result, caused by the exercise of a force and influenced by mass. The students will learn more about movements equations in dynamics 4. Dynamics 3: to understand torque which is a quantitative concept of lever principle. Next, the students will study energy conservation law and momentum conservation law. Here, by conducting a total review of physical quantities learned so far, the students will be prepared to comprehend dynamics 4. The students must pay attention to the differences in power and energy, that are easily confused. Dynamics 4: To understand constant velocity circular motion through the study of two-dimensional. As an application, the students will use simple vibration as an instrument to learn about sound and light waves. Furthermore, through the study of the law of universal gravitational attraction by Newton, the students will become aware of all the dynamic phenomena, represented by the equation of motion. To make the students perceive that if they can write the equations, they can solve it.				
Style		During each lesson (90 minutes) in the first half the teacher will explain the contents from in the textbook, and in the second half the students will participate in group-specific activities and solve problems together from the textbook. The students are required to read the textbooks in advance, to make team activities smooth and meaningful. Also, to acquire problem-solving and presentation style, we recommend the use of the support web page and videos. In the future, physical reversal classes will be abolished, so the students should focus on preparation for the classes from the beginning. Assignment: The students have to make and submit their "problem research note." The note contains explanations of the background and essence of each problem and not be used as a tool to show how much the student had studied. It also should include long-term vacations periods of study time. Test: The test problems are from high school physics book (the style of the problem is preserved, numbers and way of solving are changed), to avoid difference of interpretation between students and teacher, original questions elaborated by the teacher are not used. In resume, this course is centered on the problems from the textbook, in addition to other learning materials as the videos and the web page task, etc. The students should understand the textbook from corner to corner, as a third-party external evaluation system. In addition to the teachers' commentary, extra handouts may be distributed as a reference. I can solve Ichi's problems! This fact and feeling will give confidence to the students in other activities inside and outside the campus.				
Notice		Evaluation points: For specific calculation methods: https://sites.google.com/s.akashi.ac.jp/physics/ Re-examination: No retesting 5 absences will be excused. In junior high school, students think about something from zero. Learners who do not stand on the shoulder of the giants, are not only inefficient but also blaspheme. In the learning of physics, images from comics and animation may lead to erroneous concepts (simple concept) and sometimes interfere with correct understanding of physical phenomena. By acquiring the "style" of thinking developed by predecessor physics, you will become a sophisticated technician who is not misled by misconceptions and pseudoscience!				
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	Six formulas for single oscillation(p151-p154)	Can explain textbook's problems 170,172		
		2nd	Spring pendulum(p155-p157)	Can explain textbook's problems 173,175,177		
		3rd	Simple pendulum(p158-p159)	Can explain textbook's problems 179,180		
		4th	Kepler's Law and Universal Gravitation(p160-p163)	Can explain textbook's problems 189,191		
		5th	Gravity and Satellites(p164-p165)	Can explain textbook's problems 192,194,195		
		6th	Potential everygy due to universal gravitation(p166-p170)	Can explain textbook's problems 196,197,198		

		7th	Earth sciences1,2	Understand and can explain several topics related to earth science.
		8th	Mid term exams	Correctly answer more than 80 % of the test.
	2nd Quarter	9th	Temperature and Heat(p186-p195)	Can explain textbook's problems 207,211,214
		10th	Specific Heat Experiment	Can conduct experiments sagely and submit reports on time.
		11th	Gas law(p196-p201)	Can explain textbook's problems 228,229,230,231
		12th	Kinetic theory of gaseous molecules(p202-206)	Can explain textbook's problems 238
		13th	First law of thermodynamisc(p207-p212)	Can explain textbook's problems 241-242
		14th	P-V graph and molar specific heat	Can explain textbook's problems 243,144,249
		15th	Thermomotor(p218-p225)	Can solve basic themodynamic problems
		16th	End term exams	Correctly answer more than 80 % of the test.

Evaluation Method and Weight (%)

	Examination	Others	Total
Subtotal	40	60	100
Basic Proficiency	40	60	100
Specialized Proficiency	0	0	0
Cross Area Proficiency	0	0	0

Akashi College		Year	2024		Course Title	Science II A-2
Course Information						
Course Code		6210		Course Category	General / Compulsory	
Class Format		Lecture		Credits	School Credit: 1	
Department		Mechanical Engineering		Student Grade	2nd	
Term		Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials						
Instructor		TAKEUCHI Masahiro,				
Course Objectives						
Rubric						
		Ideal Level		Standard Level		Unacceptable Level
Achievement 1		Understand the concept of significant figures and units, and handle them appropriately.		Can handle significant figures and units appropriately.		Doesn't understand the concept of significant figures and units, and can't handle them appropriately.
Achievement 2		Understand the concept of vector and component, and use them properly.		Can use vector and component properly.		Doesn't understand and can't use vector and component.
Achievement 3		Understand the concept of the dynamics of the physical quantity, and be able to explain those concepts and perform basic calculations.		Understand the concept of the dynamics of the physical quantity.		Doesn't understand the concept of the dynamics of the physical quantity.
Assigned Department Objectives						
Teaching Method						
Outline		Learn physics dynamics which is the basis of engineering. The study of dynamics is divided into four topics. In the first year, the students will learn until constant velocity circular motion (middle of dynamics topic 4). The students are required to acquire a tremendous amount of knowledge out a difficult topic, to be perseverant and don't give up. Dynamics 1: To understand the vector concept. The contents used here are speed and acceleration, topics learned at junior high school. To explain the components of a vector is necessary to understand the trigonometric functions. Also, will be guided to handle significant figures and units. The students will learn how to study by themselves through daily tasks, such as self-learning, doing assignments (task preparation research notes), etc. Dynamics 2: to understand the relation between cause and consequence in physical phenomena. For example, acceleration (learned in dynamics 1) is the result, caused by the exercise of a force and influenced by mass. The students will learn more about movements equations in dynamics 4. Dynamics 3: to understand torque which is a quantitative concept of lever principle. Next, the students will study energy conservation law and momentum conservation law. Here, by conducting a total review of physical quantities learned so far, the students will be prepared to comprehend dynamics 4. The students must pay attention to the differences in power and energy, that are easily confused. Dynamics 4: To understand constant velocity circular motion through the study of two-dimensional. As an application, the students will use simple vibration as an instrument to learn about sound and light waves. Furthermore, through the study of the law of universal gravitational attraction by Newton, the students will become aware of all the dynamic phenomena, represented by the equation of motion. To make the students perceive that if they can write the equations, they can solve it.				
Style		During each lesson (90 minutes) in the first half the teacher will explain the contents from in the textbook, and in the second half the students will participate in group-specific activities and solve problems together from the textbook. The students are required to read the textbooks in advance, to make team activities smooth and meaningful. Also, to acquire problem-solving and presentation style, we recommend the use of the support web page and videos. In the future, physical reversal classes will be abolished, so the students should focus on preparation for the classes from the beginning. Assignment: The students have to make and submit their "problem research note." The note contains explanations of the background and essence of each problem and not be used as a tool to show how much the student had studied. It also should include long-term vacations periods of study time. Test: The test problems are from high school physics book (the style of the problem is preserved, numbers and way of solving are changed), to avoid difference of interpretation between students and teacher, original questions elaborated by the teacher are not used. In resume, this course is centered on the problems from the textbook, in addition to other learning materials as the videos and the web page task, etc. The students should understand the textbook from corner to corner, as a third-party external evaluation system. In addition to the teachers' commentary, extra handouts may be distributed as a reference. I can solve Ichi's problems! This fact and feeling will give confidence to the students in other activities inside and outside the campus.				
Notice		Evaluation points: For specific calculation methods: https://sites.google.com/s.akashi.ac.jp/physics/ Re-examination: No retesting 5 absences will be excused. In junior high school, students think about something from zero. Learners who do not stand on the shoulder of the giants, are not only inefficient but also blaspheme. In the learning of physics, images from comics and animation may lead to erroneous concepts (simple concept) and sometimes interfere with correct understanding of physical phenomena. By acquiring the "style" of thinking developed by predecessor physics, you will become a sophisticated technician who is not misled by misconceptions and pseudoscience!				
Characteristics of Class / Division in Learning						
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced
Course Plan						
			Theme	Goals		
2nd Semester r	3rd Quarter	1st	Vibration and resonance/resonance of the sounding body(p46-p53)	Can explain textbook's problems 294,288,300		
		2nd	Doppler effect(p54-p60)	Can explain textbook's problems 307,309,310		
		3rd	Properties of Light(p62-p71)	Can explain textbook's problems 317,318		
		4th	Lens (p72-p77)	Can explain textbook's problems 326,327,328		

		5th	Interference and refraction of light (p85-p89)	Can explain textbook's problems 337,338
		6th	Thin films and Newton rings (p90-p93)	Can explain textbook's problems 341,342
		7th	Electric field (p106-p116)	Can explain textbook's problems 351,349,353
		8th	Electric potential (p117-128)	Can explain textbook's problems 355,358,359
	4th Quarter	9th	CBT(Computer Based Testing)	Can explain CBT
		10th	Capacitance of Capacitors and Capacitors and Dielectrics (p129-p135)	Can explain textbook's problems 332,334,335
		11th	Capacitor connections and energy stored in capacitors (p136-p140)	Can explain textbook's problems 336,337,342
		12th	Ohm's law (p142-p147)	Can explain textbook's problems 357(1)~(4)
		13th	Joule heat and power and power and DC circuits (p148-p153)	Can explain textbook's problems 351,354,356
		14th	Kirchhoff's Law, batteries and the Wheatstone Bridge (p156-p159)	Can explain textbook's problems 360,363,365
		15th	Measurement of electromotive force and dc circuits with non-linear resistors and capacitors (p160-p163)	Can explain textbook's problems 367,368,369
		16th	final exam	Correctly answer more than 80 % of the test.

Evaluation Method and Weight (%)

	Examination	Other	Total
Subtotal	40	60	100
Basic Proficiency	40	60	100

Akashi College		Year	2024	Course Title	Science II B-1
Course Information					
Course Code	6211		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	SAKURAI Yasuhiro				
Course Objectives					
1. Can explain and calculate the basic matters related to the composition of substances (including matters related to the bonding of particles). 2. Can use chemical equations, and explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction. 3. Can explain and calculate the basic matters related to acids and bases. 4. Can explain and calculate the basic matters related to oxidation and reduction reactions.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can fully and accurately explain and calculate the basic matters related to the composition of substances (including matters related to the bonding of particles).		Can explain and calculate the basic matters related to the composition of substances (including matters related to the bonding of particles).		Cannot explain and calculate the basic matters related to the composition of substances (including matters related to the bonding of particles).
Achievement 2	Can use chemical equations, and fully and accurately explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.		Can use chemical equations, and explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.		Cannot use chemical equations, and explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.
Achievement 3	Can fully and accurately explain and calculate the basic matters related to acids and bases.		Can explain and calculate the basic matters related to acids and bases.		Cannot explain and calculate the basic matters related to acids and bases.
Achievement 4	Can fully and accurately explain and calculate the basic matters related to oxidation and reduction reactions.		Can explain and calculate the basic matters related to oxidation and reduction reactions.		Cannot explain and calculate the basic matters related to oxidation and reduction reactions.
Assigned Department Objectives					
Teaching Method					
Outline	The objectives of this course is to gain a basic knowledge of chemicals, and to develop scientific thinking by understanding the basic theories of chemistry.				
Style	Classes are taught in a lecture-style format.				
Notice	We hope that by observing their everyday lives scientifically, students will recognize that chemistry is all around us. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
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	Orientation: When learning chemistry		
		2nd	Composition of substances - 1	Can explain and calculate the basic matters related to the composition of substances.	
		3rd	Composition of substances - 2	Can explain and calculate the basic matters related to the composition of substances.	
		4th	Composition of substances - 3	Can explain and calculate the basic matters related to the composition of substances.	
		5th	Composition of substances - 4	Can explain and calculate the basic matters related to the composition of substances.	
		6th	Bonding of particles - 1	Can explain and calculate the basic matters related to the bonding of particles.	
		7th	Bonding of particles - 2	Can explain and calculate the basic matters related to the bonding of particles.	
		8th	Chemical bonding and substances		
	2nd Quarter	9th	Summary of the composition of substances	Can explain and calculate the basic matters related to the composition of substances and bonding of particles.	
		10th	Chemical equations and relationship between the amounts of reactants and products in a reaction - 1	Can explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.	

		11th	Chemical equations and relationship between the amounts of reactants and products in a reaction - 2	Can explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.
		12th	Chemical equations and relationship between the amounts of reactants and products in a reaction - 3	Can explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.
		13th	Chemical equations and relationship between the amounts of reactants and products in a reaction - 4	Can explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.
		14th	Chemical equations and relationship between the amounts of reactants and products in a reaction - 5	Can explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.
		15th	Chemical equations and relationship between the amounts of reactants and products in a reaction - 6	Can explain and calculate the basic matters related to the relationship between the amounts of reactants and products in a reaction.
		16th	Final exam	

Evaluation Method and Weight (%)

	Little test	Examination	Total
Subtotal	65	35	100
Basic Proficiency	65	35	100
Specialized Proficiency	0	0	0
Cross Area Proficiency	0	0	0

Akashi College		Year	2024		Course Title	Science II B-2
Course Information						
Course Code	6212			Course Category	General / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	2nd	
Term	Second Semester			Classes per Week	2	
Textbook and/or Teaching Materials	「新編化学基礎」数研出版、「リードα 化学基礎+化学」数研出版、「フォトサイエンス 化学図録」数研出版					
Instructor	SAKURAI Yasuhiro					
Course Objectives						
1. 物質の構成（粒子の結合に関する事項を含む）に関する基本事項について説明や計算ができる。 2. 化学反応式が取り扱え、反応量の関係に関する基本事項について説明や計算ができる。 3. 酸・塩基に関する基本事項について説明や計算ができる。 4. 酸化・還元反応に関する基本事項について説明や計算ができる。						
Rubric						
	理想的な到達レベルの目安		標準的な到達レベルの目安		未到達レベルの目安	
評価項目1	物質の構成（粒子の結合に関する事項を含む）に関する基本事項についての的確な説明や正確な計算が十分にできる。		物質の構成（粒子の結合に関する事項を含む）に関する基本事項について説明や計算ができる。		物質の構成（粒子の結合に関する事項を含む）に関する基本事項について説明や計算ができない。	
評価項目2	化学反応式が取り扱え、反応量の関係に関する基本事項についての的確な説明や正確な計算が十分にできる。		化学反応式が取り扱え、反応量の関係に関する基本事項について説明や計算ができる。		化学反応式が取り扱え、反応量の関係に関する基本事項について説明や計算ができない。	
評価項目3	酸・塩基に関する基本事項についての的確な説明や正確な計算が十分にできる。		酸・塩基に関する基本事項について説明や計算ができる。		酸・塩基に関する基本事項について説明や計算ができない。	
評価項目4	酸化・還元反応に関する基本事項についての的確な説明や正確な計算が十分にできる。		酸化・還元反応に関する基本事項について説明や計算ができる。		酸化・還元反応に関する基本事項について説明や計算ができない。	
Assigned Department Objectives						
Teaching Method						
Outline	この科目は、企業で化学に関する研究開発を担当していた教員が、その経験を活かし、化学物質の性質や化学反応に関する基礎知識について講義形式で授業を行うものである。習得した化学の基礎事項をくらしや生活環境と関連付けて役立てる、化学の基礎理論を理解することによって、科学的思考を養うことを目標とする。また、ライフサイエンスについても学習する。					
Style	授業は講義形式で行う。確認テストを複数回適宜実施する。					
Notice	日常生活を科学的に考察することによって、「化学」が身近な存在であることを認識する。 評価の対象としない欠席条件（割合） 1/3以上の欠課					
Characteristics of Class / Division in Learning						
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☒ Instructor Professionally Experienced	
Course Plan						
			Theme	Goals		
2nd Semester r	3rd Quarter	1st	酸・塩基の反応－1：酸・塩基の性質	酸と塩基の性質について理解し、説明できる。アレニウス、ブレンステッドローリーの酸・塩基を理解し、説明できる。		
		2nd	酸・塩基の反応－2：価数と電離度	価数、電離度を理解し、酸と塩基の強弱を説明できる。		
		3rd	酸・塩基の反応－3：水素イオン濃度	水素イオン濃度について理解し、説明できる。		
		4th	酸・塩基の反応－4：pHと指示薬	pH、指示薬について理解し、測定方法、pHの変化について考察、説明できる。		
		5th	酸・塩基の反応－5：中和反応と塩	中和反応について理解できる。塩の性質を理解し、説明できる。		
		6th	酸・塩基の反応－6：中和滴定	中和滴定について理解し、説明できる。		
		7th	酸・塩基の反応－7	酸・塩基の反応に関する基礎問題が解ける。		
		8th	酸化・還元反応－1：酸化と還元	酸化と還元について理解し、説明できる。		
	4th Quarter	9th	酸化・還元反応－2：酸化数の変化	酸化数について理解し、酸化・還元反応前後の変化を説明できる。		
		10th	酸化・還元反応－3：酸化剤、還元剤	代表的な酸化剤、還元剤の性質を理解し説明できる。		
		11th	酸化・還元反応－4：酸化還元反応式	酸化還元反応式を理解し、説明できる。		
		12th	酸化・還元反応－5：金属の酸化還元反応	金属の酸化還元反応について理解できる。		
		13th	酸化・還元反応－6：イオン化傾向	イオン化傾向について説明できる。		
		14th	酸化・還元反応－7：電池	電池の仕組みについて理解し、説明できる。		
		15th	酸化・還元反応 生物学1、生物学2	酸化・還元に関する基礎問題が解ける。ライフサイエンスに関する内容について理解し、解説できる。		
		16th	期末試験	後期の内容に関する基礎問題を解き、説明できる。		
Evaluation Method and Weight (%)						
	試験		その他		Total	

Subtotal	35	65	100
基礎的能力	35	65	100
專門的能力	0	0	0
分野横断的能力	0	0	0

Akashi College		Year	2024	Course Title	Physical Education II-1
Course Information					
Course Code	6213		Course Category	General / Compulsory	
Class Format	Skill		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	GOTOH Takayuki, MAEDA Tadanori				
Course Objectives					
- Participate in classes to improve students' own health and physical strength. Also, have some level of self-discipline. - Can take action to conduct sports safely. Also, recognizes the significance of collaborating and cooperating with the team and can take the necessary action to do so.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Actively participate in classes to improve their health and physical strength. Have a high level of self-discipline.		Participate in classes to improve their health and physical strength. Have some level of self-discipline.		Reluctant to participate in classes, or improve their own health and physical strength. Do not have a high level of self-discipline.
Achievement 2	Actively participate in various sport practices and games, and are very competitive. Also have a great influence on games, etc.		Can actively participate in various sport practices and games. And also have the skills for them.		Do not participate in various sport practices and games.
Achievement 3	Understand the role of a leader well, and can help increase teamwork.		Understand and can play or take on the role of a leader.		Do not understand the role of a leader. Also, never play that role.
Assigned Department Objectives					
Teaching Method					
Outline	The goal of this course is for students to learn more about the fun and depth of sports so that they can build the habit of playing sports on a daily basis. This class requires an active and proactive attitude to participate. Students will split into groups and leaders will take the lead to plan, review, and implement the course content. Students can choose from: Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.				
Style	Students are encouraged to actively participate in games and practice and to discover the fun of sports. First, they should learn the rules and how to play games, etc., and try to learn basic skills. In addition, they are expected to develop more advanced technologies and improve teamwork through games and game-style practice. Students and instructors should work together to create a safe and welcoming class.				
Notice	- Wear school-designated training wear, athletic shoes, or other designated clothing. If students fail to wear them, points will be deducted from their grade. - Do not wear accessories, watches, or any other unnecessary items, as well as chewing gum during class. These are also eligible for grade deduction. - Use of smartphones or any other unrelated activities during class are subject to point deductions. - Tardiness will be excused for the first 20 minutes. Students can participate in the class after 20 minutes, but their attendance will be marked as absent. - If it is discovered that a student left class early without being excused (ditching class), their attendance for that class will be marked as absent, and their grade for previous classes will suffer a deduction equal to an absence. - Students who miss 1/4 or more of classes will not be eligible for evaluation.				
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	Guidance	Understand the purposes and objectives of this course. Reacknowledge that warm-ups are necessary to safely exercise.	
		2nd	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		3rd	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		4th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		5th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	

		6th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		7th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		8th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	2nd Quarter	9th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Split into teams in each sport and select a leader.
		10th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		11th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		12th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		13th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		14th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		15th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		16th	No final exam	

Evaluation Method and Weight (%)

	Approach to a class	Practical skill	Leadership	Total
Subtotal	75	15	10	100
Basic Proficiency	75	0	0	75
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	15	10	25

Akashi College		Year	2024	Course Title	Physical Education II-2
Course Information					
Course Code	6214		Course Category	General / Compulsory	
Class Format	Skill		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	GOTOH Takayuki, MAEDA Tadanori				
Course Objectives					
- Participate in classes to improve students' own health and physical strength. Also, have some level of self-discipline. - Can take action to conduct sports safely. Also, recognizes the significance of collaborating and cooperating with the team and can take the necessary action to do so.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Actively participate in classes to improve their health and physical strength. Have a high level of self-discipline.		Participate in classes to improve their health and physical strength. Have some level of self-discipline.		Reluctant to participate in classes, or improve their own health and physical strength. Do not have a high level of self-discipline.
Achievement 2	Actively participate in various sport practices and games, and are very competitive. Also have a great influence on games, etc.		Can actively participate in various sport practices and games. And also have the skills for them.		Do not participate in various sport practices and games.
Achievement 3	Understand the role of a leader well, and can help increase teamwork.		Understand and can play or take on the role of a leader.		Do not understand the role of a leader. Also, never play that role.
Assigned Department Objectives					
Teaching Method					
Outline	The goal of this course is for students to learn more about the fun and depth of sports so that they can build the habit of playing sports on a daily basis. This class requires an active and proactive attitude to participate. Students will split into groups and leaders will take the lead to plan, review, and implement the course content. Students can choose from: Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.				
Style	Students are encouraged to actively participate in games and practice and to discover the fun of sports. First, they should learn the rules and how to play games, etc., and try to learn basic skills. In addition, they are expected to develop more advanced technologies and improve teamwork through games and game-style practice. Students and instructors should work together to create a safe and welcoming class.				
Notice	- Wear school-designated training wear, athletic shoes, or other designated clothing. If students fail to wear them, points will be deducted from their grade. - Do not wear accessories, watches, or any other unnecessary items, as well as chewing gum during class. These are also eligible for grade deduction. - Use of smartphones or any other unrelated activities during class are subject to point deductions. - Tardiness will be excused for the first 20 minutes. Students can participate in the class after 20 minutes, but their attendance will be marked as absent. - If it is discovered that a student left class early without being excused (ditching class), their attendance for that class will be marked as absent, and their grade for previous classes will suffer a deduction equal to an absence. - Students who miss 1/4 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☒ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester	3rd Quarter	1st	Guidance	Understand the purposes and objectives of this course. Reacknowledge that warm-ups are necessary to safely exercise.	
		2nd	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		3rd	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		4th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	
		5th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.	

		6th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		7th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		8th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	4th Quarter	9th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Split into teams in each sport and select a leader.
		10th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		11th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		12th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		13th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		14th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		15th	Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		16th	No final exam	

Evaluation Method and Weight (%)

	Approach to a class	Practical skill	Leadership	Total
Subtotal	75	15	10	100
Basic Proficiency	75	0	0	75
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	15	10	25

Akashi College		Year	2024		Course Title	English II A-1
Course Information						
Course Code	6215		Course Category	General / Compulsory		
Class Format	Lecture		Credits	School Credit: 1		
Department	Mechanical Engineering		Student Grade	2nd		
Term	First Semester		Classes per Week	2		
Textbook and/or Teaching Materials	New Rays English Communication II Textbook / New Rays English Communication II Study Note / New Rays English Communication II Workbook					
Instructor	HERBERT John C.					
Course Objectives						
1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately. 2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines. 3) To review sentence structures learned in junior high school and learn to use sentence structures appropriately, following the high school learning guidelines. 4) To read sentences, understand text outlines, and extract necessary information from English texts. 5) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.						
Rubric						
		Ideal Level	Standard Level	Unacceptable Level		
Achievement 1		The student has well acquired new vocabulary following the high school learning guidelines and uses them appropriately.	The student has acquired new vocabulary following the high school learning guidelines and uses them appropriately.	The student has neither acquired new vocabulary following the high school learning guidelines nor used them appropriately.		
Achievement 2		The student has well learned to use grammar rules appropriately, according to the high school study guidelines.	The student has learned to use grammar rules appropriately, according to the high school study guidelines.	The student has not learned to use grammar rules appropriately, according to the high school study guidelines.		
Achievement 3		The student has well learned to use sentence structures appropriately, following the high school learning guidelines.	The student has learned to use sentence structures appropriately, following the high school learning guidelines.	The student has not learned to use sentence structures appropriately, following the high school learning guidelines.		
Achievement 4		The student can read sentences, understand text outlines, and extract necessary information from English texts very well.	The student can read sentences, understand text outlines, and extract necessary information from English texts.	The student can not read sentences, understand text outlines, or extract necessary information from English texts.		
Achievement 5		The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has not acquired English pronunciation skills or accent rules so that the student can speak clearly and communicate to the listener.		
Assigned Department Objectives						
Teaching Method						
Outline	Based on English learned in junior high school, this class is to help students understand the basic structure of English sentences and acquire reading skills; to help them acquire the ability to listen and express simple English sentences; and, to perform word tests and strengthen vocabulary knowledge.					
Style	Attend the classes, prepare for the classes by studying the relevant sections of the workbook. A handout will be provided in the first week. Study the handout and understand it in detail.					
Notice	Quizzes are used to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of the classes will not be eligible for evaluation.					
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	Course guidance (Course progress method, learning method, etc.)	Understand course content and assignments.		
		2nd	Chapter 1 Part 1/2	Based on the content learned in junior high school, understand the basic structure of English language.		
		3rd	Chapter 1 Part 3/4	Based on the content learned in junior high school, understand the basic structure of English language.		
		4th	Review	Understanding the weak points on the content learned so far.		
		5th	Chapter 2 Part 1/2	Based on the content learned in junior high school, understand the basic structure of English language.		
		6th	Chapter 2 Part 3/4	Based on the content learned in junior high school, understand the basic structure of English language.		
		7th	Review	Understanding the weak points on the content learned so far.		

		8th	Chapter 3 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
	2nd Quarter	9th	Chapter 3 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.
		10th	Chapter 4 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		11th	Chapter 4 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.
		12th	Review	Understanding the weak points on the content learned so far.
		13th	Chapter 5 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		14th	Chapter 5 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.
		15th	Review	Understanding the weak points on the content learned so far and preparing for the exam.
		16th	Final exam	Test the student understanding of the content learned so far.

Evaluation Method and Weight (%)

	Final Exam	Quizzes	Assignments	Behavior/Active Learning	Total
Subtotal	40	40	10	10	100
Basic Proficiency	40	40	10	10	100
Specialized Proficiency	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0

Akashi College		Year	2024	Course Title	English II A-2
Course Information					
Course Code	6216		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials	Crown English Communication II / Crown Study Note / Crown WORKBOOK				
Instructor	INOUE Hidetoshi				
Course Objectives					
1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately. 2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines. 3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines. 4) Can read sentences written in English, understand the text outline, read and extract necessary information. 5) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.		The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.
Achievement 2	The student has well learned to use grammar rules appropriately, according to the high school study guidelines.		The student has learned to use grammar rules appropriately, according to the high school study guidelines.		The student has not learned to use grammar rules appropriately, according to the high school study guidelines.
Achievement 3	The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.		The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.
Achievement 4	The student can well read sentences written in English, understand the text outline, read and extract necessary information.		The student can read sentences written in English, understand the text outline, read and extract necessary information.		The student can not read sentences written in English, understand the text outline, read and extract necessary information.
Achievement 5	The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.		The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.
Assigned Department Objectives					
Teaching Method					
Outline	Based on the junior high school learned content, to understand the basic structure of English sentences and acquire reading skills. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.				
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook. Handout will be provided in the first week. Go over the handout and understand it in detail.				
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester r	3rd Quarter	1st	Course guidance (Course progress method, learning method, etc.)	Understand course content and assignments.	
		2nd	Chapter 5 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.	
		3rd	Chapter 5 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.	
		4th	Chapter 5 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.	
		5th	End-of-chapter Questions	Learn the vocabulary and grammar rules set as lesson tasks.	
		6th	Chapter 6 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.	
		7th	Chapter 6 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.	
		8th	Mid-term exam	Test the student understanding of the content learned so far.	

	4th Quarter	9th	Return and explain mid-term exam Chapter 6 Part 3/4	To overcome weak points
		10th	Chapter 6 Part 4 End-of-chapter Questions	Learn the vocabulary and grammar rules set as lesson tasks.
		11th	Chapter 7 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		12th	Chapter 7 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.
		13th	Chapter 7 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.
		14th	End-of-chapter Questions	Learn the vocabulary and grammar rules set as lesson tasks.
		15th	Chapter 7 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		16th	Final exam	Test the student understanding of the content learned so far.

Evaluation Method and Weight (%)

	Examination	Assignments	Quizes	Behavior	Portfolio	Other	Total
Subtotal	50	30	20	0	0	0	100
Basic Proficiency	50	30	20	0	0	0	100
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College		Year	2024		Course Title	English II B-1
Course Information						
Course Code		6217		Course Category	General / Compulsory	
Class Format		Lecture		Credits	School Credit: 1	
Department		Mechanical Engineering		Student Grade	2nd	
Term		First Semester		Classes per Week	2	
Textbook and/or Teaching Materials		(1) 総合英語EvergreenJump! Stage (いいずな書店) (2) 精選演習英文法・語法問題800 (いいずな書店) (3) 完成英単語熟語 DataBase 4500 (桐原書店)、(4) Next Stage 英文法・語法問題 4th edition (桐原書店)、(5) 総合英語Evergreen (参考書、教科書、Workbook、Essentials)				
Instructor		KITAGAWA Chiho				
Course Objectives						
(1) Organize the elements of grammar learned in the first year, and retain their knowledge. (2) Develop communication skills in English by practicing oral communication using the grammatical elements. (3) Understand English syntax, grammar, and vocabulary correctly.						
Rubric						
		Ideal Level		Standard Level		Unacceptable Level
Achievement 1		Organize the elements of grammar learned in the first year, and retain their knowledge.		Organize the elements of grammar learned in the first year, and retain their knowledge.		Organize the elements of grammar learned in the first year, and retain their knowledge.
Achievement 2		Develop communication skills in English by practicing oral communication using the elements of grammar.		Develop communication skills in English by practicing oral communication using the elements of grammar.		Develop communication skills in English by practicing oral communication using the elements of grammar.
Achievement 3		Understand English syntax, grammar, and vocabulary correctly.		Understand English syntax, grammar, and vocabulary correctly.		Understand English syntax, grammar, and vocabulary correctly.
Assigned Department Objectives						
Teaching Method						
Outline		The course aims at retaining the elements of English grammar necessary for the practical use of the language, and developing communication skills. With keeping vocabulary building also in mind, the class will help improve students' English proficiency.				
Style		There will be vocabulary tests. The class will use two textbooks to check what they have learned. Students will complete practice problems to check their understanding of grammar, and practice them orally.				
Notice		Sleeping or using mobile phones during class, forgetting to bring things to class, etc. will result in points from students' classroom attitude grade being deducted. Students must pre-study for and review each lesson. They must complete and submit all the assignments on time. Students who miss 1/4 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 r	1st Quarter	1st	Course outline		Understand how the classes will be taught and the assignments for the year.	
		2nd	Sentences, Verbs		Understand the cultures of English-speaking countries correctly.	
		3rd	Vervs, Tenses		Learn the vocabulary and grammar rules set as lesson tasks.	
		4th	Auxiliary verbs		Learn the vocabulary and grammar rules set as lesson tasks.	
		5th	Passive voice		Learn the vocabulary and grammar rules set as lesson tasks.	
		6th	Infinitives		Learn the vocabulary and grammar rules set as lesson tasks.	
		7th	Review & Exercise on the cultures of English-speaking countries		Understand the cultures of English-speaking countries correctly.	
		8th	Midterm exam		Reflect on the content learned so far, and can handle it appropriately.	
	2nd Quarter	9th	Gerunds		Learn the vocabulary and grammar rules set as lesson tasks.	
		10th	Particles		Learn the vocabulary and grammar rules set as lesson tasks.	
		11th	Comparison		Learn the vocabulary and grammar rules set as lesson tasks.	
		12th	Relatives		Learn the vocabulary and grammar rules set as lesson tasks.	
		13th	Subjective mood		Learn the vocabulary and grammar rules set as lesson tasks.	

		14th	Interrogatives	Learn the vocabulary and grammar rules set as lesson tasks.
		15th	Q&A for the first semester final exam	Resolve any questions students may have on the content covered on the exam, and understand it correctly.
		16th	Final exam	Reflect on the content learned so far, and can handle it appropriately.

Evaluation Method and Weight (%)							
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	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	50	0	0	0	0	50	100
Basic Proficiency	50	0	0	0	0	50	100
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College		Year	2024		Course Title	English II B-2
Course Information						
Course Code	6218			Course Category	General / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	2nd	
Term	Second Semester			Classes per Week	2	
Textbook and/or Teaching Materials	(1) 総合英語EvergreenJump! Stage (いっずな書店) (2) 精選演習英文法・語法問題800 (いっずな書店) (3) 完成英単語熟語 DataBase 4500 (桐原書店)、(4) Next Stage 英文法・語法問題 4th edition (桐原書店)、(5) 総合英語Evergreen (参考書、教科書、Workbook、Essentials)					
Instructor	KITAGAWA Chiho					
Course Objectives						
(1) Organize the elements of grammar learned in the first year, and retain their knowledge. (2) Develop communication skills in English by practicing oral communication using the grammatical elements. (3) Understand English syntax, grammar, and vocabulary correctly.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	Organize the elements of grammar learned in the first year, and retain their knowledge.		Organize the elements of grammar learned in the first year, and retain their knowledge.		Organize the elements of grammar learned in the first year, and retain their knowledge.	
Achievement 2	Develop communication skills in English by practicing oral communication using the elements of grammar.		Develop communication skills in English by practicing oral communication using the elements of grammar.		Develop communication skills in English by practicing oral communication using the elements of grammar.	
Achievement 3	Understand English syntax, grammar, and vocabulary correctly.		Understand English syntax, grammar, and vocabulary correctly.		Understand English syntax, grammar, and vocabulary correctly.	
Assigned Department Objectives						
Teaching Method						
Outline	The course aims at retaining the elements of English grammar necessary for the practical use of the language, and developing communication skills. With keeping vocabulary building also in mind, the class will help improve students' English proficiency.					
Style	There will be vocabulary tests. The class will use two textbooks to check what they have learned. Students will complete practice problems to check their understanding of grammar, and practice them orally.					
Notice	Sleeping or using mobile phones during class, forgetting to bring things to class, etc. will result in points from students' classroom attitude grade being deducted. Students must pre-study for and review each lesson. They must complete and submit all the assignments on time. Students who miss 1/4 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		
2nd Semester	3rd Quarter	1st	Orientation/Exercise on the cultures of English-speaking countries AdverbsVerbs	Understand the cultures of English-speaking countries correctly.		
		2nd	Interrogatives and Interrogative sentences	Learn the vocabulary and grammar rules set as lesson tasks.		
		3rd	Negation, Direct/Indirect Speech	Learn the vocabulary and grammar rules set as lesson tasks.		
		4th	Nominal Structures/Inanimate Subject	Learn the vocabulary and grammar rules set as lesson tasks.		
		5th	Inversion, Ellipsis, Emphasis, Parenthesis	Learn the vocabulary and grammar rules set as lesson tasks.		
		6th	Pronouns	Learn the vocabulary and grammar rules set as lesson tasks.		
		7th	Exercise on the cultures of English-speaking countries	Understand the cultures of English-speaking countries correctly.		
		8th	Review	Review		
	4th Quarter	9th	PronounsNouns, Articles	Learn the vocabulary and grammar rules set as lesson tasks.		
		10th	Adjectives	Learn the vocabulary and grammar rules set as lesson tasks.		
		11th	Adverbs	Learn the vocabulary and grammar rules set as lesson tasks.		
		12th	Prepositions	Learn the vocabulary and grammar rules set as lesson tasks.		
		13th	Conjunctions	Learn the vocabulary and grammar rules set as lesson tasks.		
		14th	Dialogues, Vocabruaries	Learn the vocabulary and grammar rules set as lesson tasks.		

		15th	Q&A for the second semester final exam	Resolve any questions students may have on the content covered on the exam, and understand it correctly.
		16th	Final exam	Reflect on the content learned so far, and can handle it appropriately.

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	50	0	0	0	0	50	100
Basic Proficiency	50	0	0	0	0	50	100
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College		Year	2024		Course Title	C o + w o r k I A
Course Information						
Course Code		6219		Course Category		General / Compulsory
Class Format		Seminar		Credits		School Credit: 1
Department		Mechanical Engineering		Student Grade		2nd
Term		First Semester		Classes per Week		2
Textbook and/or Teaching Materials		No required textbook and the required material will change according to the contents of the activity of each team.				
Instructor		All faculty				
Course Objectives						
1) Self-reliance: To acquire individuality and self-management ability 2) Co-operation skills: To gain the ability to work in teams and respect the teammates. 3) Creative Skills: To acquire the ability to gather and organize information, discover and propose solutions to problems.						
Rubric						
		Ideal Level		Standard Level		Unacceptable Level
1 Self-reliance		Schedule management, reporting, contact, consultation, planning goals with the teammates		Individually able to schedule management, reporting, contact, consultation, planning goals.		Not able to schedule management, reporting, contact, consultation, and planning goals
2 Co-operation skills		Open to different opinions, able to express the student personal opinion, and ability to lead the team into a consensus.		Open to different opinions, able to express the student personal opinion, and ability to play the attributed role in the team.		Not open to different opinions, not able to express the student personal opinion, and can't to play the attributed role in the team.
3 Creative Skills		The student can voluntarily gather information, organize and summarize this information, form ideas and explain those ideas to others.		The student can voluntarily gather information, organize and summarize this information, and explain those ideas to others.		The student can't voluntarily gather information, can't organize and summarize this information, and can't explain those ideas to others.
Assigned Department Objectives						
Teaching Method						
Outline		This course aims to develop the students' self-reliance, co-operation and creative skills in a manner that the student can contribute to a team in a variety of environments (working with students from other departments, different age, and people from outside the school). Each group is to work with the instructor in charge and challenge themselves in creating something or perform activities that will bring happiness to someone other than the team members. Each team has to elaborate a plan and do its activities. The students will revise their plan after its presentation at a briefing session and retrospective evaluation.				
Style		2nd,3rd, and 4th academic year students from all four departments are randomly selected to compose a group with multiple students. After each student introduces themselves to the team, they will perform ice breaks and other activities that will help to build relationships within the group. Later the team will discuss and discover a problem to work with, make plans, divide roles among the members and work together toward a solution to the problem. Through working to solve this problem the students will achieve the goals of self-reliance, co-operation, and creativity. After the course start, make sure that you can contact the teacher in charge of the team. Based on the course rubric distributed in class each student has to establish individual goals. The course rubric is used to self-evaluation, mutual evaluation, and to evaluate the performance of each student. Every week at the end of the lesson, the student has to fill a retrospective sheet and set the next goal.				
Notice		The grading system of the course is composed on the self-evaluation by students, mutual evaluation, evaluation by the teacher in charge of the team (1), and multiple faculty members at the briefing session at the end of the term (2). Students who miss 1/4 or more of classes will not be eligible for evaluation.				
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	Course overall guidance, presentation of the members of each team, team building guidance, confirmation of course schedule, restrictions and advice regarding the activities, explanation of the evaluation method. Later team members and the team and the teacher in charge meet and work together on team building.		To acquire Self-reliance, Co-operation and Creative Skills.	
		2nd	Each student set the activity targets, and self-goals. The team will discuss ideas and a theme to the activities. Later according to the team activity goal, the group will work on the implementation method, division of roles among the members and schedule, which will be summarized in an action plan.		To acquire Self-reliance, Co-operation and Creative Skills.	
		3rd	Each student set the activity targets, and self-goals. The team will discuss ideas and a theme to the activities. Later according to the team activity goal, the group will work on the implementation method, division of roles among the members and schedule, which will be summarized in an action plan.		To acquire Self-reliance, Co-operation and Creative Skills.	

		4th	Each student set the activity targets, and self-goals. The team will discuss ideas and a theme to the activities. Later according to the team activity goal, the group will work on the implementation method, division of roles among the members and schedule, which will be summarized in an action plan.	To acquire Self-reliance, Co-operation and Creative Skills.
		5th	Setting targets and planning activities, submit the action plan. According to the theme and goals of the team, the group will draw ideas and discuss them. The group will establish the activity goal, decide the method to achieve it, decide members' role sharing, schedule, and summarize in a plan.	To acquire Self-reliance, Co-operation and Creative Skills.
		6th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc.	To acquire Self-reliance, Co-operation and Creative Skills.
		7th	Team activities: Work according to the action plan.	To acquire Self-reliance, Co-operation and Creative Skills.
		8th	No mid-term Exam	
	2nd Quarter	9th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc. Prepare to the briefing session.	To acquire Self-reliance, Co-operation and Creative Skills.
		10th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc. Prepare to the briefing session.	To acquire Self-reliance, Co-operation and Creative Skills.
		11th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc. Prepare to the briefing session.	To acquire Self-reliance, Co-operation and Creative Skills.
		12th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc. Prepare to the briefing session.	To acquire Self-reliance, Co-operation and Creative Skills.
		13th	Briefing session: Report the activities of the team and listen to reports from other groups.	To acquire Self-reliance, Co-operation and Creative Skills.
		14th	Retrospective meeting and summary of activities: The group will discuss the results from the briefing session and review the team action plan. The students will evaluate individually and mutually their achieved points and goals, regarding self-reliance, co-operation, and creativity.	To acquire Self-reliance, Co-operation and Creative Skills.
		15th	Retrospective meeting and summary of activities: The group will discuss the results from the briefing session and review the team action plan. The students will evaluate individually and mutually their achieved points and goals, regarding self-reliance, co-operation, and creativity.	To acquire Self-reliance, Co-operation and Creative Skills.
		16th	No end-term Exam	

Evaluation Method and Weight (%)

	Individual Self-reliance (process)	Individual Co-operation (process)	Individual Creativity (process)	Team operation Co-operation (process)	Team Creativity (process)	Other	Total
Subtotal	24	24	12	20	20	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	24	24	12	20	20	0	100

Akashi College		Year	2024		Course Title	C o + w o r k I B
Course Information						
Course Code	6220		Course Category	General / Compulsory		
Class Format	Seminar		Credits	School Credit: 1		
Department	Mechanical Engineering		Student Grade	2nd		
Term	Second Semester		Classes per Week	2		
Textbook and/or Teaching Materials	No required textbook and the required material will change according to the contents of the activity of each team.					
Instructor	All faculty					
Course Objectives						
1) Self-reliance: To acquire individuality and self-management ability 2) Co-operation skills: To gain the ability to work in teams and respect the teammates. 3) Creative Skills: To acquire the ability to gather and organize information, discover and propose solutions to problems.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
1 Self-reliance	Schedule management, reporting, contact, consultation, planning goals with the teammates		Individually able to schedule management, reporting, contact, consultation, planning goals.		Not able to schedule management, reporting, contact, consultation, and planning goals	
2 Co-operation skills	Open to different opinions, able to express the student personal opinion, and ability to lead the team into a consensus.		Open to different opinions, able to express the student personal opinion, and ability to play the attributed role in the team.		Not open to different opinions, not able to express the student personal opinion, and can't to play the attributed role in the team.	
3 Creative Skills	The student can voluntarily gather information, organize and summarize this information, form ideas and explain those ideas to others.		The student can voluntarily gather information, organize and summarize this information, and explain those ideas to others.		The student can't voluntarily gather information, can't organize and summarize this information, and can't explain those ideas to others.	
Assigned Department Objectives						
Teaching Method						
Outline	This course aims to develop the students' self-reliance, co-operation and creative skills in a manner that the student can contribute to a team in a variety of environments (working with students from other departments, different age, and people from outside the school). Each group is to work with the instructor in charge and challenge themselves in creating something or perform activities that will bring happiness to someone other than the team members. Each team has to elaborate a plan and do its activities. The students will revise their plan after its presentation at a briefing session and retrospective evaluation.					
Style	2nd,3rd, and 4th academic year students from all four departments are randomly selected to compose a group with multiple students. After each student introduces themselves to the team, they will perform ice breaks and other activities that will help to build relationships within the group. Later the team will discuss and discover a problem to work with, make plans, divide roles among the members and work together toward a solution to the problem. Through working to solve this problem the students will achieve the goals of self-reliance, co-operation, and creativity. After the course start, make sure that you can contact the teacher in charge of the team. Based on the course rubric distributed in class each student has to establish individual goals. The course rubric is used to self-evaluation, mutual evaluation, and to evaluate the performance of each student. Every week at the end of the lesson, the student has to fill a retrospective sheet and set the next goal.					
Notice	The grading system of the course is composed on the self-evaluation by students, mutual evaluation, evaluation by the teacher in charge of the team (1), and multiple faculty members at the briefing session at the end of the term (2). Students who miss 1/4 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning						
☒ Active Learning		☒ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced
Course Plan						
			Theme	Goals		
2nd Semester	3rd Quarter	1st	Course overall guidance, presentation of the members of each team, team building guidance, confirmation of course schedule, restrictions and advice regarding the activities, explanation of the evaluation method. Later team members and the team and the teacher in charge meet and work together on team building.	To acquire Self-reliance, Co-operation and Creative Skills.		
		2nd	Each student set the activity targets, and self-goals. The team will discuss ideas and a theme to the activities. Later according to the team activity goal, the group will work on the implementation method, division of roles among the members and schedule, which will be summarized in an action plan.	To acquire Self-reliance, Co-operation and Creative Skills.		
		3rd	Each student set the activity targets, and self-goals. The team will discuss ideas and a theme to the activities. Later according to the team activity goal, the group will work on the implementation method, division of roles among the members and schedule, which will be summarized in an action plan.	To acquire Self-reliance, Co-operation and Creative Skills.		

		4th	Each student set the activity targets, and self-goals. The team will discuss ideas and a theme to the activities. Later according to the team activity goal, the group will work on the implementation method, division of roles among the members and schedule, which will be summarized in an action plan.	To acquire Self-reliance, Co-operation and Creative Skills.
		5th	Setting targets and planning activities, submit the action plan. According to the theme and goals of the team, the group will draw ideas and discuss them. The group will establish the activity goal, decide the method to achieve it, decide members' role sharing, schedule, and summarize in a plan.	To acquire Self-reliance, Co-operation and Creative Skills.
		6th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc.	To acquire Self-reliance, Co-operation and Creative Skills.
		7th	Team activities: Work according to the action plan.	To acquire Self-reliance, Co-operation and Creative Skills.
		8th	No mid-term Exam	
	4th Quarter	9th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc. Prepare to the briefing session.	To acquire Self-reliance, Co-operation and Creative Skills.
		10th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc. Prepare to the briefing session.	To acquire Self-reliance, Co-operation and Creative Skills.
		11th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc. Prepare to the briefing session.	To acquire Self-reliance, Co-operation and Creative Skills.
		12th	Team activities: Work according to the action plan. The action plan may be modified/changed, according to schedule delay, the incompleteness of the implementation method, etc. Prepare to the briefing session.	To acquire Self-reliance, Co-operation and Creative Skills.
		13th	Briefing session: Report the activities of the team and listen to reports from other groups.	To acquire Self-reliance, Co-operation and Creative Skills.
		14th	Retrospective meeting and summary of activities: The group will discuss the results from the briefing session and review the team action plan. The students will evaluate individually and mutually their achieved points and goals, regarding self-reliance, co-operation, and creativity.	To acquire Self-reliance, Co-operation and Creative Skills.
		15th	Retrospective meeting and summary of activities: The group will discuss the results from the briefing session and review the team action plan. The students will evaluate individually and mutually their achieved points and goals, regarding self-reliance, co-operation, and creativity.	To acquire Self-reliance, Co-operation and Creative Skills.
		16th	No end-term Exam	

Evaluation Method and Weight (%)

	Individual Self-reliance (process)	Individual Co-operation (process)	Individual Creativity (process)	Team operation Co-operation (process)	Team Creativity (process)	Other	Total
Subtotal	24	24	12	20	20	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	24	24	12	20	20	0	100

Akashi College		Year	2024	Course Title	ICT Qualification I
Course Information					
Course Code	6221		Course Category	General / Elective	
Class Format	その他		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	Year-round		Classes per Week	1	
Textbook and/or Teaching Materials	Nothing				
Instructor	TAKEUCHI Masahiro				
Course Objectives					
The goal is to pass certification exams of external organizations related to information processing. Successful completion of the following qualifying examinations is eligible for credit. Evaluation will be on a pass/fail basis and will not be based on scores. IT Passport Exam.					
Rubric					
		Ideal Level		Unacceptable Level	
Achievement 1		Pass the IT Passport exam.		Not pass the IT Passport exam.	
Assigned Department Objectives					
Teaching Method					
Outline	As a result of learning in the field of information engineering, this course is positioned as a course that grants credits according to the results of qualification examinations sponsored by external organizations.				
Style	This is an independent study for the certification examination, and no lectures are given. Pay attention to the following WEB sites for further study. https://www3.jitec.ipa.go.jp/JitesCbt/index.html				
Notice	A certificate or other proof of acceptance is required to receive credit. Applications must be submitted by the designated date after the winter break. If the student is unable to submit proof within this time frame, the credit will not be granted.				
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	Independent study	Goals of each	
		2nd	Same as above	Same as above	
		3rd	Same as above	Same as above	
		4th	Same as above	Same as above	
		5th	Same as above	Same as above	
		6th	Same as above	Same as above	
		7th	Same as above	Same as above	
		8th	Same as above	Same as above	
	2nd Quarter	9th	Same as above	Same as above	
		10th	Same as above	Same as above	
		11th	Same as above	Same as above	
		12th	Same as above	Same as above	
		13th	Same as above	Same as above	
		14th	Same as above	Same as above	
		15th	Same as above	Same as above	
		16th	Same as above	Same as above	
2nd Semester	3rd Quarter	1st	Same as above	Same as above	
		2nd	Same as above	Same as above	
		3rd	Same as above	Same as above	
		4th	Same as above	Same as above	
		5th	Same as above	Same as above	
		6th	Same as above	Same as above	
		7th	Same as above	Same as above	
		8th	Same as above	Same as above	
	4th Quarter	9th	Same as above	Same as above	
		10th	Same as above	Same as above	
		11th	Same as above	Same as above	
		12th	Same as above	Same as above	
		13th	Same as above	Same as above	
		14th	Same as above	Same as above	
		15th	Same as above	Same as above	
		16th	Same as above	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	100	100

Akashi College		Year	2024	Course Title	Mathematics Certification I
Course Information					
Course Code	6222		Course Category	General / Elective	
Class Format	その他		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	Year-round		Classes per Week	1	
Textbook and/or Teaching Materials	None				
Instructor	OMODA Yasuhiro				
Course Objectives					
he goal is to pass a qualifying examination by an external organization with content related to mathematics. If you pass any of the following qualifications, you will be eligible for credit recognition. Practical Mathematics Proficiency Test: Level 2 The evaluation shall be 100 in case of passing.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Practical Mathematics Proficiency Test: Pass Level 2.		Practical Mathematics Proficiency Test: Pass Level 2.		Practical Mathematics Proficiency Test: Fail to pass Level 2.
Assigned Department Objectives					
Teaching Method					
Outline	As a result of learning in the field of mathematics, it is positioned as a subject that gives credits according to the results of qualification examinations sponsored by external organizations. If you pass one of the designated external qualification exams and complete the prescribed procedures by the deadline designated by the Educational Affairs Section of the Student Affairs Division, you will be awarded one credit.				
Style	This is self-study for the qualification exam, and no lectures are given.				
Notice	Certificates of passing the examinations taken in the 1st and 2nd grades or certificates of passing the examinations taken in the first and second years are required for credit transfer. Credits will not be granted if proof is not submitted within this period. Strictly observe the deadline. Absence conditions (percentage) that are not considered for passing No condition				
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	Self-directed learning	Voluntary study for qualification exams (no lectures)	
		2nd	same as above	same as above	
		3rd	same as above	same as above	
		4th	same as above	same as above	
		5th	same as above	same as above	
		6th	same as above	same as above	
		7th	same as above	same as above	
		8th	same as above	same as above	
	2nd Quarter	9th	same as above	same as above	
		10th	same as above	same as above	
		11th	same as above	same as above	
		12th	same as above	same as above	
		13th	same as above	same as above	
		14th	same as above	same as above	
		15th	same as above	same as above	
		16th	No final exam		
2nd Semester	3rd Quarter	1st	Self-directed learning	Voluntary study for qualification exams (no lectures)	
		2nd	same as above	same as above	
		3rd	same as above	same as above	
		4th	same as above	same as above	
		5th	same as above	same as above	
		6th	same as above	same as above	
		7th	same as above	same as above	
		8th	same as above	same as above	
	4th Quarter	9th	same as above	same as above	
		10th	same as above	same as above	
		11th	same as above	same as above	
		12th	same as above	same as above	
		13th	same as above	same as above	

		14th	same as above	same as above
		15th	same as above	same as above
		16th	No final exam	
Evaluation Method and Weight (%)				
		Examination	Other	Total
Subtotal		0	100	100
Basic Proficiency		0	100	100
Specialized Proficiency		0	0	0
Cross Area Proficiency		0	0	0

Akashi College		Year	2024		Course Title	Japanese II -1	
Course Information							
Course Code		6223		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 2	
Department		Mechanical Engineering		Student Grade		2nd	
Term		First Semester		Classes per Week		前期:4	
Textbook and/or Teaching Materials		QUARTET: Intermediate Japanese Across the Four Language Skills II, The Japan Times by Tadashi Sakamoto, The Japan Times					
Instructor		KUBOTA Ikumi					
Course Objectives							
1. Can use Japanese to explain a particular thing in detail and logically explain their feelings and thoughts, from familiar topics to a wide range of topics. 2. Can read a significant amount of texts on a wide range of topics and comprehend its information. 3. Have a clear understanding of the strengths and weaknesses of their own Japanese ability and skills and can explain them in their native language. Can also then think of the proper solutions to challenges on their own and put them into action.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Can appropriately select the words learned so far, and write and speak clear and logical sentences and texts without hints or assistance.		Can appropriately select the words learned so far, and write and speak clear and logical sentences and texts with hints or assistance.		Cannot appropriately select the words learned so far, and cannot write or speak clear and logical sentences or texts.	
Achievement 2		Can choose how to read a text based on the purpose for reading it, and generally understand its content.		Can read a text based on hints and assistance and generally understand its content.		Cannot read a text in various ways, and can barely understand its content.	
Achievement 3		Can figure out their challenges, think of solutions, and put them into action.		Can figure out their challenges and think of solutions.		Even if they can figure out their challenges, they cannot think of a solution.	
Assigned Department Objectives							
Teaching Method							
Outline		Students will study lower intermediate Japanese to upper intermediate Japanese throughout the year. In addition to reading a significant amount of texts to gain deeper understanding of their content, they will also develop skills to convey what they want to convey through production activities.					
Style		By reading in Japanese on a variety of topics, students will enhance their Japanese ability and skills, and learn strategies for communicating in Japanese. It's also important to be able to use different words for different people and situations.					
Notice		Students need to be able to not only acquire linguistic knowledge, but also to use them properly. For every lesson, students will be expected to reflect on what they could and could not do, and to be proactive in improving their Japanese ability and skills. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
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	Orientation		Understand the class objectives and content.		
		2nd	"QUARTET1" Ch. 6		Understand the author's claim and the reason. Also, understand the expressions when expressing opinions.		
		3rd	"QUARTET1" Ch. 6		Can write a letter to the editor about familiar problems.		
		4th	"QUARTET1" Ch. 6		Can make complaints, make excuses and apologize so that you don't get in trouble with the other person.		
		5th	"QUARTET1" Ch. 7		Can read other people's experiences to understand the contents and write what you have learned or felt from your own experiences.		
		6th	"QUARTET1" Ch. 7		Can convey things that are difficult to say to the other party in indirect words.		
		7th	"QUARTET1" Ch. 7		Can give your opinion in a discussion about a multicultural society.		
		8th	Reflection		Can look back on what you can do in Japanese and reconfirm your goals from the next week.		
	2nd Quarter	9th	"QUARTET1" Ch. 8		Understand the contents of the interview article.		
		10th	"QUARTET1" Ch. 8		Can interview your friends and put them together in an article.		
		11th	"QUARTET1" Ch. 8		Can explain the details of the thing in order to make an inquiry about the thing left behind.		
		12th	"QUARTET1" Ch. 8		Can tell the other person about the recommended items.		
		13th	"QUARTET1" Ch. 9		Understand the feelings of the person by reading a long story.		

		14th	"QUARTET1" Ch. 9	Understand the paragraph structure of the sentence, and can read the story.	
		15th	"QUARTET1" Ch. 9	Can write a review of your recommended story.	
		16th	Final exam		
Evaluation Method and Weight (%)					
		Examination	Assignments	Portfolio	Total
Subtotal		50	40	10	100
Basic Proficiency		50	20	0	70
Specialized Proficiency		0	0	0	0
Cross Area Proficiency		0	20	10	30

Akashi College		Year	2024		Course Title	Japanese II -2	
Course Information							
Course Code		6224		Course Category		General / Compulsory	
Class Format		Lecture		Credits		School Credit: 1	
Department		Mechanical Engineering		Student Grade		2nd	
Term		Second Semester		Classes per Week		2	
Textbook and/or Teaching Materials		QUARTET: Intermediate Japanese Across the Four Language Skills II, The Japan Times by Tadashi Sakamoto, The Japan Times					
Instructor		KUBOTA Ikumi					
Course Objectives							
1. Can use Japanese to explain a particular thing in detail and logically explain their feelings and thoughts, from familiar topics to a wide range of topics. 2. Can read a significant amount of texts on a wide range of topics and comprehend its information. 3. Have a clear understanding of the strengths and weaknesses of their own Japanese ability and skills and can explain them in their native language. Can also then think of the proper solutions to challenges on their own and put them into action.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Can appropriately select the words learned so far, and write and speak clear and logical sentences and texts without hints or assistance.		Can appropriately select the words learned so far, and write and speak clear and logical sentences and texts with hints or assistance.		Cannot appropriately select the words learned so far, and cannot write or speak clear and logical sentences or texts.	
Achievement 2		Can choose how to read a text based on the purpose for reading it, and generally understand its content.		Can read a text based on hints and assistance and generally understand its content.		Cannot read a text in various ways, and can barely understand its content.	
Achievement 3		Can figure out their challenges, think of solutions, and put them into action.		Can figure out their challenges and think of solutions.		Even if they can figure out their challenges, they cannot think of a solution.	
Assigned Department Objectives							
Teaching Method							
Outline		Students will study lower intermediate Japanese to upper intermediate Japanese throughout the year. In addition to reading a significant amount of texts to gain deeper understanding of their content, they will also develop skills to convey what they want to convey through production activities.					
Style		By reading in Japanese on a variety of topics, students will enhance their Japanese ability and skills, and learn strategies for communicating in Japanese. It's also important to be able to use different words for different people and situations.					
Notice		Students need to be able to not only acquire linguistic knowledge, but also to use them properly. For every lesson, students will be expected to reflect on what they could and could not do, and to be proactive in improving their Japanese ability and skills. Students who miss 1/4 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning							
☒ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced	
Course Plan							
			Theme		Goals		
2nd Semester	3rd Quarter	1st	"QUARTET1" Ch. 9		Can offer to the other party or decline the offer from the other party.		
		2nd	"QUARTET1" Ch. 10		Can read the survey report to find out the results and analysis details.		
		3rd	"QUARTET1" Ch. 10		Can see effective expressions when explaining data and showing survey results. Can make sentences using those expressions.		
		4th	"QUARTET1" Ch. 10		Can write the problems and improvement methods considered from the given survey results.		
		5th	"QUARTET1" Ch. 10		Can propose about what you learned in the 4th week by using data,		
		6th	"QUARTET1" Ch. 11		Understand the author's thoughts by reading the editorial text.		
		7th	"QUARTET1" Ch. 11		Understand the expressions often used in editorial texts.		
		8th	"QUARTET1" Ch. 11		Can deepen your understanding of synonyms, polysemous words, and homonyms, and give examples of words that you should be aware of.		
	4th Quarter	9th	"QUARTET1" Ch. 11		Can notice recent language changes and look back on your own and others' language usage.		
		10th	Reflection		Can look back on what you can do in Japanese and reconfirm your goals from the next week.		
		11th	"QUARTET1" Ch. 12		Understand what the writer wants to convey and what I claim by reading various types of sentences.		

		12th	"QUARTET1" Ch. 12	Understand the reading strategy according to the characteristics of the text.
		13th	"QUARTET1" Ch. 12	Understand effective expressions for writing logical sentences.
		14th	"QUARTET1" Ch. 12	Can consider the abilities you will need in the future, and briefly state them.
		15th	"QUARTET1" Ch. 12	Can give your opinion and reason for the content of the 14th week.
		16th	Final exam	

Evaluation Method and Weight (%)				
	Examination	Assignments	Portfolio	Total
Subtotal	50	40	10	100
Basic Proficiency	50	20	0	70
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	20	10	30

Akashi College		Year	2024	Course Title	Japanese Practice I
Course Information					
Course Code	6225		Course Category	General / Compulsory	
Class Format	Lecture		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials	The teacher will make and distribute the handout. (Teaching materials : Short Essays in 12 Steps by Etsuko Tomomatsu, 3A Corporation / The Way to Become an Advanced Speaker of Japanese Techniques and Expressions for Effective Communication by Chikako Ogiwara)				
Instructor	KUBOTA Ikumi				
Course Objectives					
1. Learn about and understand Japanese culture, and also relate it to their own culture. Also realize the differences and similarities between the two cultures and can speculate about them. 2. Can express and speak about a range of topics on culture and language behavior in Japan and other countries, in a detailed and clear structure, with respect to social and cultural commonalities and differences.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Have more knowledge and information about Japanese culture than from what was presented in class.		Have sufficient knowledge and information about Japanese culture from what was presented in class.		Have basic knowledge and information about Japanese culture from what was presented in class.
Achievement 2	Can explain what they have noticed or speculated about the differences and similarities between their own culture and other culture based on their background and reasoning.		Can explain what they have noticed or speculated about differences and similarities between their own culture and other culture.		Cannot point out the differences or similarities between their own culture and other culture.
Achievement 3	Can express and speak about their observations and thoughts about the subject in a detailed and clear structure.		Can express and speak about their observations and thoughts about the subject in a detailed and clear structure with hints or assistance.		Cannot express their observations or thoughts about the subject in a detailed and clear structure, and can only express them in words or short sentences.
Assigned Department Objectives					
Teaching Method					
Outline	There are differences in language behavior and culture that we notice in real-life communication situations. The aim of this course is for students to develop a deeper understanding of the differences in language behavior and culture between Japan and their own countries. The students will also make speeches and exchange conversations based on their experiences, opinions, and ideas, related to the subject of each lesson.				
Style	The class will be carried out using handouts. Students will say what they noticed in class during class time or fill it out on a handout. For "speaking" productive activities, students will try to improve their scripts and materials by receiving peer feedback and advice from their teachers, and present the completed ones.				
Notice	We hope this class will deepen students' understanding of Japan and their own cultures and allow them to be able to think about them more clearly. In addition, students should make this class an opportunity to enhance the written Japanese expressions and spoken Japanese expressions so that they can express what they noticed or thought through the class using the Japanese language they learned. Students who miss 1/4 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☒ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester	3rd Quarter	1st	Orientation	Understand the class objectives and content.	
		2nd	Recent Events	Can write about recent events.	
		3rd	Recent Events	Can write about recent events.	
		4th	Recent Events	Can talk about recent events while getting the other person's attention. Can also listen to the other person's story and comment.	
		5th	Think about social circumstances	Can see and analyze the survey data and show your thoughts in Japanese.	
		6th	Think about social circumstances	Can write a short report by dividing the data into outline, analysis, consideration, and summary.	
		7th	Think about social circumstances	Can write a short report by dividing the data into outline, analysis, consideration, and summary.	
		8th	Difference between own culture and Japanese culture	Understand the general communication style of Japanese and think about the meaning of a certain word.	
	4th Quarter	9th	Difference between own culture and Japanese culture	Can think about the difference between your mother tongue and Japanese, explain the characteristics of each, and compare them.	
		10th	Difference between own culture and Japanese culture	Can write an essay about the contents summarized in the 9th week.	

		11th	Relationship with society	Can present issues on a topic and show basis of your opinion.
		12th	Relationship with society	Can summarize and present your thoughts after listening to the opinion of others.
		13th	Relationship with society	Can participate in the debate in Japanese.
		14th	Relationship with society	Can write a short essay by dividing it into an introduction, a main theory, and a conclusion.
		15th	Relationship with society	Can write a short essay by dividing it into an introduction, a main theory, and a conclusion.
		16th	Reflection	Can explain new things you found out in class, things that changed their minds, and how your Japanese abilities and skills have developed.

Evaluation Method and Weight (%)

	Presentation ・ Production work	Submission of assignments	Behavior	Total
Subtotal	70	20	10	100
Basic Proficiency	35	20	0	55
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	35	0	10	45

Akashi College		Year	2024		Course Title	Programming Fundamentals
Course Information						
Course Code		6226		Course Category	Specialized / Compulsory	
Class Format		Lecture		Credits	School Credit: 1	
Department		Mechanical Engineering		Student Grade	2nd	
Term		Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials						
Instructor		TANAKA Seiichi				
Course Objectives						
(1) Can program in C language. (2) Can think about how to deal with engineering problems through programming technology.						
Rubric						
		Ideal Level		Standard Level		Unacceptable Level
Achievement 1		Can accurately program in C language.		Can program in C language.		Cannot program in C language.
Achievement 2		Can think specifically about how to deal with the problem by programming technology.		Can think of how to deal with the problem through programming technology.		Cannot think about how to deal with the problem through programming technology .
Assigned Department Objectives						
Teaching Method						
Outline		In order to deal with problems related to computer-based machine control and numerical calculations, students will acquire basic programming knowledge and techniques through programming by C language.				
Style		Based on the text that will be distributed at the beginning of the class, students will learn what were shown in the overview. There will be slide-based lectures in the Information Media Center, and a computer-based work and exercise in the lab.				
Notice		(1) Review the use of the computer you learned in the year 1 class Foundations of Information Processing. It's important to actively utilize the Information Media Center in accordance with the methods and rules of use of the school network (7. Information Center in Student Life), and to become familiar with programming. Students may bring their own computer for exercises. (2) Students should prepare their own file binders for organizing lecture materials. 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	
2nd Semester	3rd Quarter	1st	Class guidance Programming basics		Understand and can explain the purpose of this class. Understand and can explain the basic matters of programming.	
		2nd	Creation and running of programs, Processing of numeric data 1		Understand and can operate the procedures for creating and running a program using a lab PC. Understand the types of numeric data, how to enter and display them, and how to process calculations, and can create a program.	
		3rd	Processing of numeric data 2		Can create a program to perform the actions presented in the exercise based on the learning content of the previous week.	
		4th	Numeric functions, processing of character data 1		Understand and can explain the use of numeric functions, the types of character data and character codes necessary for scientific and technological calculations.	
		5th	Numeric functions, processing of character data 2		Can create a program to perform the actions presented in the exercise based on the learning content of the previous week.	
		6th	Control structure and structured programming Branching 1		Understand and can explain the basics of structured programming. Understand and can explain how to handle branching with the if and switch statements.	
		7th	Branching 2		Can create a program to perform the actions presented in the exercise based on the learning content of the previous week.	
		8th	Midterm exam			
	4th Quarter	9th	Loop 1		Understand and can explain how to iterate through the for and while statements.	
		10th	Loop 2		Can create a program to perform the actions presented in the exercise based on the learning content of the previous week.	
		11th	Use of array 1		Understand and can explain how to process large amounts of data using one- and two-dimensional arrays.	

		12th	Use of array 2	Can create a program to perform the actions presented in the exercise based on the learning content of the previous week.
		13th	Use of string, Engineering use of programming 1	Understand and can explain how to use strings . Understand and can explain how to handle discrete data required for scientific and technical calculations and machine control, and use the engineering techniques of programming .
		14th	Use of string, engineering use of programming 2	Can create a program to perform the actions presented in the exercise based on the learning content of the previous week.
		15th	Comprehensive exercise	Can use previously learned content to set up an objective and create a program by oneself. Can read and review programs created by others.
		16th	Final exam	

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

Akashi College		Year	2024		Course Title	Design and Drawing II A		
Course Information								
Course Code		6227		Course Category		Specialized / Compulsory		
Class Format		Practical training		Credits		School Credit: 1		
Department		Mechanical Engineering		Student Grade		2nd		
Term		First Semester		Classes per Week		2		
Textbook and/or Teaching Materials								
Instructor		MATSUZUKA Naoki						
Course Objectives								
(1) Understand the standards of mechanical drawing and create production drawings of mechanical parts. (2) Can sketch a vise and create its production drawing.								
Rubric								
		Ideal Level		Standard Level		Unacceptable Level		
Achievement 1		Understand the standards of mechanical drawing and can accurately create production drawings of mechanical parts.		Understand the standards of mechanical drawing and can create production drawings of mechanical parts.		Do not understand the standards of drawing and cannot create production drawings of mechanical parts.		
Achievement 2		Can sketch a vise and accurately create its production drawings.		Can sketch a vise and create its production drawing.		Cannot sketch a vise and create its production drawing.		
Assigned Department Objectives								
Teaching Method								
Outline		We will learn correct drawing method by tracing existing drawings. In addition, we will create production drawings based on sketches and dimensional measurements of a vise, etc. The aim is to learn the structure of machinery and to acquire the correct drafting method that is in accordance with JIS through these processes.						
Style		Classes will be taught in a lab style.						
Notice		Try to understand the interaction between actual goods and drawings. Also, pursue a design drawing that is acceptable in real-world use. Students who miss 1/4 or more of classes will not be eligible for evaluation.						
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	Explanation of learning content and review of Design and Drawing I		Understand and can explain the basics of mechanical drawings.			
		2nd	Drawing bearing (1)		Understand how to draft production drawings and can create (trace) production drawings.			
		3rd	Drawing bearing (2)		Understand how to draft production drawings and can create (trace) production drawings.			
		4th	About sketches and production drawings		Understand the purpose and procedures of sketching.			
		5th	Sketching a vise (1)		Can observe and sketch a vise.			
		6th	Sketching a vise (2)		Can observe and sketch a vise.			
		7th	Sketching a vise (3)		Can observe and sketch a vise.			
		8th	Sketching a vise (4)		Can observe and sketch a vise.			
	2nd Quarter	9th	Sketching a vise (5)		Can observe and sketch a vise.			
		10th	Sketching a vise (6)		Can observe and sketch a vise.			
		11th	Drawing a vise's movable parts (1)		Can create a production drawing from a sketch.			
		12th	Drawing a vise's movable parts (2)		Can create a production drawing from a sketch.			
		13th	Drawing a vise's movable parts (3)		Can create a production drawing from a sketch.			
		14th	Drawing a vise's movable parts (4)		Can create a production drawing from a sketch.			
		15th	Drawing a vise's movable parts (5)		Can create a production drawing from a sketch.			
		16th						
Evaluation Method and Weight (%)								
	Attendance		Attitude		Drawing		Total	
Subtotal		30		10		60		100
Basic Proficiency		0		0		0		0
Specialized Proficiency		30		10		60		100
Cross Area Proficiency		0		0		0		0

Akashi College		Year	2024		Course Title	Design and Drawing II B		
Course Information								
Course Code		6228		Course Category		Specialized / Compulsory		
Class Format		Practical training		Credits		School Credit: 1		
Department		Mechanical Engineering		Student Grade		2nd		
Term		Second Semester		Classes per Week		2		
Textbook and/or Teaching Materials								
Instructor		MATSUZUKA Naoki						
Course Objectives								
(1) Understand the standards of mechanical drawing and create production drawings of mechanical parts. (2) Can create a production drawing from a sketch of a vise.								
Rubric								
		Ideal Level		Standard Level		Unacceptable Level		
Achievement 1		Understand the standards of mechanical drawing and can accurately create production drawings of mechanical parts.		Understand the standards of mechanical drawing and can create production drawings of mechanical parts.		Do not understand the standards of drawing and cannot create production drawings of mechanical parts.		
Achievement 2		Can accurately create a production drawing from a sketch of a vise.		Can create a production drawing from a sketch of a vise.		Cannot create a production drawing from a sketch of a vise.		
Assigned Department Objectives								
Teaching Method								
Outline		We will mainly create production drawings based on sketches and dimensional measurements of a vise, etc. We will also create a sheet metal expansion diagram. The aim is to learn the structure of machinery and to acquire the correct drafting method that is in accordance with JIS through these processes.						
Style		Classes will be taught in a lab style.						
Notice		Try to understand the correlation between actual goods and drawings. Also, pursue a design drawing that is acceptable in real-world use. Students who miss 1/4 or more of classes will not be eligible for evaluation.						
Characteristics of Class / Division in Learning								
☐ Active Learning		☐ Aided by ICT		☐ Applicable to Remote Class		☐ Instructor Professionally Experienced		
Course Plan								
			Theme		Goals			
2nd Semester	3rd Quarter	1st	Drawing a vise's body (1)		Can create a production drawing from a sketch.			
		2nd	Drawing a vise's body (2)		Can create a production drawing from a sketch.			
		3rd	Drawing a vise's body (3)		Can create a production drawing from a sketch.			
		4th	Drawing a vise's body (4)		Can create a production drawing from a sketch.			
		5th	Drawing a vise's body (5)		Can create a production drawing from a sketch.			
		6th	Drawing a vise assembly drawing (1)		Can create a production drawing from a sketch.			
		7th	Drawing a vise assembly drawing (2)		Can create a production drawing from a sketch.			
		8th	Drawing a vise assembly drawing (3)		Can create a production drawing from a sketch.			
	4th Quarter	9th	Drawing a small vise (1)		Can create a production drawing of a small vise.			
		10th	Drawing a small vise (2)		Can create a production drawing of a small vise.			
		11th	Drawing a small vise (3)		Can create a production drawing of a small vise.			
		12th	Drawing a small vise (4)		Can create a production drawing of a small vise.			
		13th	Drawing a small vise (5)		Can create a production drawing of a small vise.			
		14th	Sheet metal development drawing (1)		Understand how to create a sheet metal development drawing and can create a production drawing.			
		15th	Sheet metal development drawing (2)		Understand how to create a sheet metal development drawing and can create a production drawing.			
		16th						
Evaluation Method and Weight (%)								
	Attendance		Attitude		Drawing		Total	
Subtotal		30		10		60		100
Basic Proficiency		0		0		0		0
Specialized Proficiency		30		10		60		100
Cross Area Proficiency		0		0		0		0

Akashi College		Year	2024	Course Title	Manufacturing Engineering Practice II A
Course Information					
Course Code	6229		Course Category	Specialized / Compulsory	
Class Format	Practical training		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	KATOH Takahiro,OHMORI Shigetoshi				
Course Objectives					
(1) Can carry out exercises based on procedures and instructions. (2) Can use the equipment and devices correctly. (3) Can report in writing, orally, etc. (4) Can carry out exercises by working together as a group. (5) Can acquire basic knowledge and skills in mechanical engineering. (a) In welding work, understand the methods of flat butt welding and the gas welding and can manufacture a product. (b) In milling work, understand the machining procedures of a hexahedral object and can manufacture a product. (c) In lathe machining, understand the types and applications of screws, machining of male threads using oblique threading, and grooving, and can manufacture a product.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can fully carry out exercises based on the instructions and procedures provided.		Can carry out exercises based on the instructions and instructions provided.		Cannot carry out exercises based on the instructions and instructions provided.
Achievement 2	Can use equipment and devices sufficiently and correctly.		Can use equipment and devices correctly.		Cannot use equipment and devices correctly.
Achievement 3	Can report sufficiently in writing, orally, etc.		Can report in writing, orally, etc.		Cannot report in writing, orally, etc.
	Can carry out exercises by working together as a group while encouraging other members.		Can carry out exercises by working together as a group.		Cannot carry out exercises by working together as a group.
	Understand the methods of flat butt welding and the gas welding and can manufacture a good product.		Understand the methods of flat butt welding and the gas welding and can manufacture a product.		Do not understand the methods of flat butt welding, and cannot manufacture a product.
	Understand the machining procedures of hexahedral object, and can manufacture a good product.		Understand the machining procedures of hexahedral object, and can manufacture a product.		Do not understand the machining procedures of hexahedral object, and cannot manufacture a product.
	Understand the types and applications of screws, machining of male threads using oblique threading, and grooving, and can manufacture a good product.		Understand the types and applications of screws, machining of male threads using oblique threading, and grooving, and can manufacture a product.		Do not understand the types and applications of screws, machining of male threads using oblique threading, and grooving, and cannot manufacture a product.
Assigned Department Objectives					
Teaching Method					
Outline	In this course, we will further pursue basic exercises and do applied exercises. The goals is to understand basic technology through the organic relationship between processing theory and practice, develop work processes for rational work, and develop creative abilities.				
Style	We will do safety education in a lecture style in the first class. From the second class and on, we will do basic exercises in the training factory. For basic exercises, students will split into six groups and carry out different assignments in turn. In addition, we will go on a factory tour to deepen knowledge of production methods.				
Notice	In exercises, students may be concerned with the shape of the product, its appearance, and the progress of other groups. Always keep the purpose in mind, try to work correctly, and try to grasp the essential things. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
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	Safety education (Omori and Kato)	Understand latent dangers of the work during the exercises and learn to work safely.	
		2nd	Welding exercise I-1: Flat butt welding method (Making of bend test piece) (Omori and Kato)	Understand the flat butt weld method (Making a bend test piece) and learn how to work.	
		3rd	Welding exercise I-2: Flat butt welding method (Making of bend test pieces) (Omori and Kato)	Understand the flat butt weld method (Making a bend test piece) and learn how to work.	
		4th	Welding exercise II-1: Explanation of work procedures and handling of automatic gas cutter (Omori and Kato)	Learn how to work with gas welding and how to handle automatic gas cutters.	
		5th	Welding exercise II-2: Explanation of for work procedures and handling of automatic gas cutters.(Omori and Kato)	Learn how to work with gas welding and how to handle automatic gas cutters.	

		6th	Milling exercise I-1: Machining of a hexahedron object (Omori, and Kato)	Learn the basics of working procedures for machining through work on a hexahedron object with milling machines.
		7th	Milling exercise I-2: Machining of a hexahedron object (Omori and Kato)	Learn the basics of working procedures for machining through work on a hexahedron object with milling machines.
		8th	Factory tour (Omori and Kato)	By visiting a production plant, students will gain knowledge and insight that cannot be obtained at the training factory.
	2nd Quarter	9th	Milling exercise I-3: Machining of a hexahedron object (Omori and Kato)	Learn the basics of working procedures for machining through work on a hexahedron object with milling machines.
		10th	Milling exercise I-4: Machining of a hexahedron object (Omori and Kato)	Learn the basics of working procedures for machining through work on a hexahedron object with milling machines
		11th	Lathing exercise I-1: Types and applications of screws, machining of male threads using oblique threading, and grooving (Omori and Kato)	Learn about the types and applications of screws, machining of male threads using oblique threading, and grooving through lathe machining.
		12th	Lathing exercise I-2: Types and applications of screws, machining of male threads using oblique threading, and grooving (Omori and Kato)	Learn about the types and applications of screws, machining of male threads using oblique threading, and grooving through lathe machining.
		13th	Lathing exercise II-1: Making screw rods for a small vise (Omori and Kato)	Learn how to make a screw rod for a small vise through lathe machining.
		14th	Lathing exercise II-2: Making of screw rods for a small vise (Omori, Kato)	Learn how to make a screw rod for a small vise through lathe machining.
		15th	Factory tour (Omori and Kato)	By visiting a production plant, students will gain knowledge and insight that cannot be obtained at the training factory.
		16th	No final exam	

Evaluation Method and Weight (%)

	Report	the work	Behavior	Total
Subtotal	60	20	20	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	60	20	20	100
Cross Area Proficiency	0	0	0	0

Akashi College		Year	2024		Course Title	Manufacturing Engineering Practice II B
Course Information						
Course Code	6230		Course Category	Specialized / Compulsory		
Class Format	Practical training		Credits	School Credit: 1		
Department	Mechanical Engineering		Student Grade	2nd		
Term	Second Semester		Classes per Week	2		
Textbook and/or Teaching Materials						
Instructor	KATOH Takahiro,OHMORI Shigetoshi					
Course Objectives						
(1) Can carry out exercises based on procedures and instructions. (2) Can use the equipment and devices correctly. (3) Can report in writing, orally, etc. (4) Can carry out exercises by working together as a group. (5) Can acquire basic knowledge and skills in mechanical engineering. (a) Understand and work with basic knowledge of gas welding, principles, characteristics and handling of CO2 and TIG welding in welding operations. (b) Understand the end mill machining method and tolerance precision by milling machine operations, and perform basic machining. (c) In lathe machining, can manufacture a product using applied techniques such as the mating method, the use of limit gauges, the basic techniques of rolling knurled machining, drilling, bored roughing, and boring finishing.						
Rubric						
	Ideal Level		Standard Level		Unacceptable Level	
Achievement 1	Can fully carry out exercises based on the instructions and procedures provided.		Can carry out exercises based on the instructions and instructions provided.		Cannot carry out exercises based on the instructions and instructions provided.	
Achievement 2	Can use equipment and devices sufficiently and correctly.		Can use equipment and devices correctly.		Cannot use equipment and devices correctly.	
Achievement 3	Can report sufficiently in writing, orally, etc.		Can report in writing, orally, etc.		Cannot report in writing, orally, etc.	
	Can carry out exercises by working together as a group while encouraging other members.		Can carry out exercises by working together as a group.		Cannot carry out exercises by working together as a group.	
	Understand the basic knowledge of gas welding, the principles, characteristics, and handling of CO2 and TIG welding, and can work well.		Understand basic knowledge of gas welding, the principles, characteristics, and handling of CO2 and TIG welding, and can perform basic tasks.		Do not understand the basic knowledge of gas welding, the principles, characteristics, and handling of CO2 and TIG welding, and cannot perform tasks.	
	Understand end mill machining techniques and tolerance accuracy to manufacture good products.		Understand the end mill machining method and tolerance accuracy, and can perform basic machining.		Do not understanding end mill machining methods and tolerance precision, and cannot perform basic machining.	
	Understand the mating method and the use of the limit gauge, and can manufacture a good product using the rolling knurled machining method, drilling, boring roughing, and boring finishing.		Understand the mating method and the use of the limit gauge, and can manufacture a product using rolling knurled machining method, drilling, bored roughing, and boring finishing.		Do not understand the mating method and the use of the limit gauge, and can manufacture a product using rolling knurled machining method, drilling, bored roughing, and boring finishing.	
Assigned Department Objectives						
Teaching Method						
Outline	In this course, we will further pursue basic exercises and do applied exercises. The goals is to understand basic technology through the organic relationship between processing theory and practice, develop work processes for rational work, and develop creative abilities.					
Style	We will do basic exercises at the training factory. For basic exercises, students will split into six groups and carry out different assignments in turn. In addition, we will go on a factory tour to deepen knowledge of production methods.					
Notice	In exercises, students may be concerned with the shape of the product, its appearance, and the progress of other groups. Always keep the purpose in mind, try to work correctly, and try to grasp the essential things. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
Characteristics of Class / Division in Learning						
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced
Course Plan						
			Theme	Goals		
2nd Semester r	3rd Quarter	1st	Welding exercise III-1: Basic knowledge of gas welding, how to place beads, and precautions (Omori and Kato)	Understand basic knowledge of gas welding, how to place beads, precautions, etc., and learn how to work.		
		2nd	Welding exercise III-2: Basic knowledge of gas welding, how to place beads, and precautions (Omori and Kato)	Understand basic knowledge of gas welding, how to place beads, precautions, etc., and learn how to work.		
		3rd	Welding exercise IV-1: Principles, characteristics and handling of CO2, and TIG welding (Omori and Kato)	Understand the principles, characteristics, and handling of CO2 and TIG welding, and learn how to work.		

		4th	Welding exercise IV-2: Principles, characteristics and handling of CO2, and TIG welding (Omori and Kato)	Understand the principles, characteristics, and handling of CO2 and TIG welding, and learn how to work.
		5th	Milling exercise II-1: Basic processing techniques such as end mill machining and tolerance accuracy (Omori and Kato)	Understand the end mill machining method and tolerance precision by milling and learn basic machining techniques.
		6th	Milling exercise II-2: Basic processing techniques such as end mill machining method and tolerance accuracy (Omori and Kato)	Understand the end mill machining method and tolerance precision by milling and learn basic machining techniques.
		7th	Milling exercise II-3: Basic processing techniques such as end mill machining method and tolerance accuracy (Omori and Kato)	Understand the end mill machining method and tolerance precision by milling and learn basic machining techniques.
		8th	Factory tour (Omori and Kato)	Broaden knowledge and insights that cannot be obtained at the training factory.
	4th Quarter	9th	Milling exercise II-4: Basic processing techniques such as end mill machining method, and tolerance accuracy (Omori and Kato)	Understand the end mill machining method and tolerance precision by milling and learn basic machining techniques.
		10th	Lathing exercise III-1: Mating method, explanation of limit gauge, and turning knurled processing method (Omori and Kato)	Understand the installation method, limit gauge handling method, and rolling knurled machining method through lathing exercises, and learn how to do the work.
		11th	Lathing exercise III-2: Mating method, explanation of the limit gauge, and roll-making method (Omori and Kato)	Understand the installation method, limit gauge handling method, and rolling knurled machining method through lathing exercises, and learn how to do the work.
		12th	Lathing exercise IV-1: Drilling, bore roughing, and bore finishing (Omori and Kato)	Acquire applied techniques such as drilling, bored roughing, and boring finishing through lathing exercises.
		13th	Lathing exercise IV-2: Drilling, bore roughing, and bore finishing (Omori and Kato)	Acquire applied techniques such as drilling, bored roughing, and boring finishing through lathing exercises.
		14th	Factory tour (Omori and Kato)	Broaden knowledge and insights that cannot be obtained at the training factory.
		15th	Report writing	Accurately summarize the knowledge and techniques acquired in the exercises.
		16th	No final exam	

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

Akashi College		Year	2024	Course Title	Practice on Mechanical Engineering II A
Course Information					
Course Code	6231		Course Category	Specialized / Compulsory	
Class Format	Practical training		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	First Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	KATOH Takahiro,OHMORI Shigetoshi				
Course Objectives					
(1) Can carry out exercises based on procedures and instructions. (2) Can use the equipment and devices correctly. (3) Can report in writing, orally, etc. (4) Can carry out exercises by working together as a group. (5) Can acquire basic knowledge and skills in mechanical engineering. (a) Understand the types and constructions of engines, and can use hand tools correctly to disassemble and assemble an engine. (a) Understand how NC machine tools work and can create an NC program. (c) Understand the control methods of various motors, and can assemble motor driver circuits, and operate robots.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can fully carry out exercises based on the instructions and procedures provided.		Can carry out exercises based on the instructions and instructions provided.		Cannot carry out exercises based on the instructions and instructions provided.
Achievement 2	Can use equipment and devices sufficiently and correctly.		Can use equipment and devices correctly.		Cannot use equipment and devices correctly.
Achievement 3	Can report sufficiently in writing, orally, etc.		Can report in writing, orally, etc.		Cannot report in writing, orally, etc.
	Can carry out exercises by working together as a group while encouraging other members.		Can carry out exercises by working together as a group.		Cannot carry out exercises by working together as a group.
	Understand the types and constructions of engines, and can use hand tools correctly to disassemble and assemble an engine.		Understand the types and constructions of engines, and can use hand tools correctly to disassemble and assemble an engine.		Do not understand the types and constructions of engines, and cannot use hand tools correctly to disassemble and assemble an engine.
	Understand how NC machine tools work and can create an NC program.		Understand how NC machine tools work and can create an NC program.		Do not understand how NC machine tools work and cannot create an NC program.
	Understand the control methods of various motors, and can assemble motor driver circuits, and operate robots correctly.		Understand how to control various motors, and can assemble motor driver circuits, and operate robots.		Do not understand how to control various motors, and cannot assemble motor driver circuits, and operate the robot.
Assigned Department Objectives					
Teaching Method					
Outline	Deepen basic exercises and provide applied exercises. Understand basic technology through the organic relationship between processing theory and practice, develop work processes for rational work, and develop creative abilities.				
Style	We will carry out basic exercises after safety education, For basic exercises, students will split into six groups and carry out different assignments in turn. In addition, we will go on a factory tour to deepen knowledge of production methods.				
Notice	In exercises, students may be concerned with the shape of the product, its appearance, and the progress of other groups. Always keep the purpose in mind, try to work correctly, and try to grasp the essential things. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☐ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
1st Semester r	1st Quarter	1st	Safety education (Katoh and Omori)	Can work safely on various machines	
		2nd	Engine exercise I-1 (Omori)	Understand the basic use of hand tools and the structure and type of engine.	
		3rd	Engine exercise I-2 (Omori)	Understand the basic use of hand tools and the structure and type of engine.	
		4th	Engine exercise II-1 (Omori)	Can explain the difference between a two-cycle engine and a four-cycle engine.	
		5th	Engine exercise II-2 (Omori)	Can explain the difference between a two-cycle engine and a four-cycle engine.	
		6th	NC exercise I-1 (Katoh)	Understand how to program and can create an NC program.	
		7th	NC exercise I-2 (Katoh)	Understand how to program and can create an NC program.	

		8th	Factory tour	Can Deepen your knowledge and insight of production systems and production management.
	2nd Quarter	9th	NC exercise II-1 (Kato)	Understand how to operate the MC and can create an NC program.
		10th	NC exercise II-2 (Kato)	Understand how to operate the MC and can create an NC program.
		11th	Motor control exercise I-1 (ohnishi)	Understand how to control various motors, and can assemble the motor driver circuit.
		12th	Motor control exercise I-2 (ohnishi)	Understand how to control various motors, and can assemble the motor driver circuit.
		13th	Motor control exercise II-1 (ohnishi)	Can control the speed of movement of the robot using the motor driver circuit.
		14th	Motor control exercise II-2 (ohnishi)	Can control the speed of movement of the robot using the motor driver circuit.
		15th	Factory tour (Kato and Omori)	Can Deepen your knowledge and insight of production systems and production management.
		16th	No final exam	

Evaluation Method and Weight (%)

	Examination	Report	The work	Behavior	Total
Subtotal	0	60	20	20	100
Basic Proficiency	0	0	0	0	0
Specialized Proficiency	0	60	20	20	100
Cross Area Proficiency	0	0	0	0	0

Akashi College		Year	2024	Course Title	Practice on Mechanical Engineering II B
Course Information					
Course Code	6232		Course Category	Specialized / Compulsory	
Class Format	Practical training		Credits	School Credit: 1	
Department	Mechanical Engineering		Student Grade	2nd	
Term	Second Semester		Classes per Week	2	
Textbook and/or Teaching Materials					
Instructor	KATOH Takahiro,SEKIMORI Daisuke				
Course Objectives					
(1) Can carry out exercises based on procedures and instructions. (2) Can use the equipment and devices correctly. (3) Can report in writing, orally, etc. (4) Can carry out exercises by working together as a group. (5) Can acquire basic knowledge and skills in mechanical engineering. (a) Understand basic knowledge of electrical circuits that are related to the control of machinery. (b) Understand the how to operate and the importance of NC machine tools including machining centers through NC programming. (c) Understand the control of robots through the production of line trace robots.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can fully carry out exercises based on the instructions and procedures provided.		Can carry out exercises based on the instructions and instructions provided.		Cannot carry out exercises based on the instructions and instructions provided.
Achievement 2	Can use equipment and devices sufficiently and correctly.		Can use equipment and devices correctly.		Cannot use equipment and devices correctly.
Achievement 3	Can report sufficiently in writing, orally, etc.		Can report in writing, orally, etc.		Cannot report in writing, orally, etc.
	Can carry out exercises by working together as a group while encouraging other members.		Can carry out exercises by working together as a group.		Cannot carry out exercises by working together as a group.
	Fully understand the electrical circuit diagrams, and the functions and action of each component.		Understand the electrical circuit diagrams, and the functions and action of each component.		Do not fully understand the electrical circuit diagrams, and the function and action of each component.
	Fully understand the operation methods and importance of NC machine tools such as machining centers through NC programming.		Understand the operation and importance of NC machine tools such as machining centers through NC programming.		Do not understand the operation and importance of NC machine tools such as machining centers through NC programming.
	Fully understand the control of robots through the production of line trace robots.		Understand the control of robots through the production of line trace robots.		Do not understand the control of robots through the production of line trace robots.
Assigned Department Objectives					
Teaching Method					
Outline	In this course, we will further pursue basic exercises and do applied exercises. The goals is to understand basic technology through the organic relationship between processing theory and practice, develop work processes for rational work, and develop creative abilities.				
Style	Students will split into six groups and carry out different assignments in turn. In addition, we will go on a factory tour to deepen knowledge of production methods.				
Notice	In exercises, students may be concerned with the shape of the product, its appearance, and the progress of other groups. Always keep the purpose in mind, try to work correctly, and try to grasp the essential things. Students who miss 1/3 or more of classes will not be eligible for evaluation.				
Characteristics of Class / Division in Learning					
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class	☒ Instructor Professionally Experienced
Course Plan					
			Theme	Goals	
2nd Semester	3rd Quarter	1st	Sequence basic exercise I-1(Kato)	Understand the knowledge of electrical circuit diagrams and the functions and action of each component.	
		2nd	Sequence basic exercise I-2(Kato)	Understand the knowledge of electrical circuit diagrams and the functions and action of each component.	
		3rd	Sequence basic exercise II-1(Kato)	Understand the function, action, etc. of each component by integrating them into an actual circuit, and understand a more applied circuit.	
		4th	Sequence basic exercise II-2(Kato)	Understand the function, action, etc. of each component by integrating them into an actual circuit, and understand a more applied circuit.	
		5th	NC exercise III-1(Kato)	Understand NC programming through the assignments.	

		6th	NC exercise III-2(Kato)	Understand NC programming through the assignments.
		7th	NC exercise IV-1(Kato)	Can process automatically using the program created.
		8th	Factory tour	A tour of the actual production site will allow better understanding of production.
	4th Quarter	9th	NC exercise IV-2(Kato)	Can process automatically using the program created.
		10th	Robot assembly exercise I-1(Sekimori)	Can assemble a line trace robot
		11th	Robot assembly exercise I-2(Sekimori)	Can assemble a line trace robot
		12th	Robot assembly exercise II-1(Sekimori)	Can adjust various sensors and improve the performances.
		13th	Robot assembly exercise II-2(Sekimori)	Can adjust various sensors and improve the performances.
		14th	Factory tour	A tour of the actual production site will allow better understanding of production.
		15th	Report writing	Accurately summarize the knowledge and techniques acquired in the exercises.
		16th	No final exam	

Evaluation Method and Weight (%)

	Examination	Report	The work	Behavior	Total
Subtotal	0	60	20	20	100
Basic Proficiency	0	0	0	0	0
Specialized Proficiency	0	60	20	20	100
Cross Area Proficiency	0	0	0	0	0

Akashi College		Year	2024		Course Title	Manufacturing Engineering I
Course Information						
Course Code	6233			Course Category	Specialized / Compulsory	
Class Format	Lecture			Credits	School Credit: 1	
Department	Mechanical Engineering			Student Grade	2nd	
Term	First Semester			Classes per Week	2	
Textbook and/or Teaching Materials						
Instructor	KATOH Takahiro					
Course Objectives						
1. Understand the basics of casting and can choose the best design and machining method for a workpiece.						
2. Understand the basics of plastic working and can choose the best design and machining method for a workpiece.						
Rubric						
		Ideal Level		Standard Level		Unacceptable Level
Achievement 1		Can establish a method for manufacturing products by casting.		Can explain the various casting methods.		Cannot explain the various casting methods.
Achievement 2		Can establish a method for manufacturing plastic working.		Can explain the various plastic working methods.		Cannot explain the various plastic working methods.
Assigned Department Objectives						
Teaching Method						
Outline	Can explain how to make castings, the requirements, structure and types of the molds. Can explain how to make castings in precision casting, die casting and other casting methods. Can explain the defects of castings. Can explain the characteristics of plastic working (forging, rolling, pressing, and other plastic working methods).					
Style	Classes will be held in a lecture style, and there will be exercises and assignments.					
Notice	Students are required to review what they learn and try to understand the content of the lecture, not simply memorize it. Students who miss 1/3 or more of classes will not be eligible for evaluation.					
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	Outline of casting, and models (model type, and model material)	Learn about casting and models.		
		2nd	Mold I (sand mold, shell molding, special mod, and mold)	Learn about sand molds, shell molds, special molds, and molds.		
		3rd	Casting II (casting method, and forming machine)	Learn about casting plans and mold-building machines.		
		4th	Melting furnace (cupola, electric furnace, crucible furnace, and reverberatory furnace)	Learn about cupola, electric furnace, crucible furnace and reverberatory furnace.		
		5th	Defects in castings and inspection methods (defects, and inspection methods)	Learn about the defects and inspection methods of castings.		
		6th	Metal for casting (cast iron, cast steel, copper alloy, and light alloy)	Learn about cast iron, cast steel, copper alloy, and light alloy.		
		7th	Special casting method I (die casting, centrifugal casting method, vacuum degassing method, and continuous casting method)	Learn about die casting, centrifugal casting, vacuum degassing, and continuous casting.		
		8th	Summary, Midterm exam			
	2nd Quarter	9th	Overview of plastic working (What is plastic working; and characteristic of plastic working)	Learn about plastic working and its outline.		
		10th	Forging I (What is forging; hot forging, cold forging, free forging, and mold forging)	Learn about the features of forging, hot and cold forging, free forging, and mold forging.		
		11th	Forging II (forging machinery, and forging materials)	Learn about forging machinery and materials for forging.		
		12th	Rolling (What is rolling, rolling machine, rolling of steel, deforming of material, and deforming of roll)	Learn about rolling, rolling machines, rolling of steel, deforming of materials, and deforming of rolls.		
		13th	Press I (What is a press?)	Learn about the outline of press and its characteristics.		
		14th	Press II (Types of press working, and press machine)	Learn about the types of press processing and press machines.		
		15th	Other plastic working methods (explosive molding, discharge molding, electromagnetic molding, and high-speed forging), Summary	Learn about explosion molding, discharge molding, electromagnetic molding, and high-speed forging.		
		16th	Final exam			
Evaluation Method and Weight (%)						

	Examination	Report	Attendance • Behavior • Presentation	Total
Subtotal	60	30	10	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	60	30	10	100
Cross Area Proficiency	0	0	0	0

Akashi College		Year	2024		Course Title	Manufacturing Engineering II	
Course Information							
Course Code	6234			Course Category	Specialized / Compulsory		
Class Format	Lecture			Credits	School Credit: 1		
Department	Mechanical Engineering			Student Grade	2nd		
Term	Second Semester			Classes per Week	2		
Textbook and/or Teaching Materials							
Instructor	KATOH Takahiro						
Course Objectives							
1. Understand the basics of welding and can select the best design and machining method for a workpiece.							
2. Can understand the basics of cutting and the various machining methods, and can choose the best design and machining method for a workpiece.							
3. Understand the basics of grinding, and can choose the best design and machining method for a workpiece.							
Rubric							
	Ideal Level			Standard Level		Unacceptable Level	
Achievement 1	Can establish a method for manufacturing products in welding.			Can explain the various welding methods.		Cannot explain the various welding methods.	
Achievement 2	Can establish a method for manufacturing products in cutting.			Can explain the theory of cutting and the various cutting methods.		Cannot explain the theory of cutting and the various cutting methods.	
Achievement 3	Can establish a method for manufacturing products in grinding .			Can explain the grinding theory and various cutting methods.		Cannot explain the grinding theory and various cutting methods.	
Assigned Department Objectives							
Teaching Method							
Outline	Students are expected to understand the principle principles of various machining methods and the nature of processing phenomena correctly, and make effort to improve their ability to adapt to machine production.						
Style	Classes will be held in a lecture style, and there will be exercises and assignments.						
Notice	Students are required to review what they learn and try to understand the content of the lecture, not simply memorize it. Students who miss 1/3 or more of classes will not be eligible for evaluation.						
Characteristics of Class / Division in Learning							
☐ Active Learning		☐ Aided by ICT		☒ Applicable to Remote Class		☐ Instructor Professionally Experienced	
Course Plan							
			Theme		Goals		
2nd Semester r	3rd Quarter	1st	Welding overview, arc welding I (Overview of arc welding)		Learn about outlines of welding and arc welding.		
		2nd	Arc welding II (Sheathed arc welding, and gravity arc welding)		Learn about sheathed and gravity arc welding.		
		3rd	Arc welding III (Sub-merge arc welding, Inert gas arc welding, and carbon dioxide welding)		Learn about sub-merge arc welding, inert gas arc welding and carbon dioxide welding.		
		4th	Gas welding		Learn about gas welding.		
		5th	Resistance welding (point welding, protrusion welding, sewn welding, butt welding, and spark butt welding)		Learn about spot welding, protrusion welding, sewn welding, butt welding, and spark butt welds.		
		6th	Other kinds of welding (electroslag welding, high frequency welding, arc stud welding, gas pressure welding, and friction pressure welding)		Learn about electroslag welding, high frequency welding, arc stud welding, gas pressure welding and friction pressure welding.		
		7th	The nature of the weld zones, and welding of various materials Summary		Learn about the nature of the weld zones and the welding of various materials.		
		8th	Midterm exam				
	4th Quarter	9th	Cutting overview, cutting theory I (cutting mechanism, chips, built-up edge)		Learn about cutting mechanisms, chips, and built-up edges.		
		10th	Cutting theory II (cutting resistance, and cutting temperature)		Learn about cutting resistance and cutting temperature.		
		11th	Cutting theory III (tool materials)		Learn about tool materials.		
		12th	Cutting theory IV (tool damage, tool life, theoretical roughness, and cutting fluid)		Learn about tool damage, tool life, theoretical roughness, and cutting fluids.		
		13th	Various machine tools (lathe machines, drilling machines, milling machines, planing machines, shaping machines, vertical milling machines, and broaching machines)		Learn about lathe machines, drilling machines, milling machines, planing machines, shaping machines, vertical milling machines, and broaching machines.		
		14th	Overview of grinding, grinding theory, and grinding mechanism		Learn about grinding, grinding theory, and grinding mechanism.		
		15th	Grinding stone, dressing and truing, and grinding machine Summary		Learn about grinding stone, dressing and truing, and grinding machines.		

		16th	Final exam	
Evaluation Method and Weight (%)				
	Examination	Report	Attendance・Behavior・Presentation	Total
Subtotal	60	30	10	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	60	30	10	100
Cross Area Proficiency	0	0	0	0