Akashi College	Electrical and Computer Engineering	Year	2024

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		2nd		1st		2nd		1st		2nd		1st		2nd		1st		2nd	
						1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q		
General	Compulsory	Japanese I-1	6101	School Credit	1	2																			
General	Compulsory	Japanese I-2	6102	School Credit	1			2																	
General	Compulsory	History-1	6103	School Credit	1	2																		ARAKAWA Hironori	
General	Compulsory	History-2	6104	School Credit	1			2																ARAKAWA Hironori	
General	Compulsory	Mathematics I A-1	6105	School Credit	2	4																		OMODA Yasuhiro	
General	Compulsory	Mathematics I A-2	6106	School Credit	2			4																	
General	Compulsory	Mathematics I B-1	6107	School Credit	1	2																			
General	Compulsory	Mathematics I B-2	6108	School Credit	1			2																	
General	Compulsory	Science I-1	6109	School Credit	1	2																		TAKEUCHI Masahiro	
General	Compulsory	Science I-2	6110	School Credit	1			2																TAKEUCHI Masahiro	
General	Compulsory	Physical Education I-1	6111	School Credit	1	2																		GOTOH Takayuki,ISHIDA Masami	
General	Compulsory	Physical Education I-2	6112	School Credit	1			2																GOTOH Takayuki,ISHIDA Masami	
General	Compulsory	English I A-1	6113	School Credit	1	2																		AKIMOTO Hiromi	
General	Compulsory	English I A-2	6114	School Credit	1			2																AKIMOTO Hiromi	

General	Compulsory	English I B-1	6115	School Credit	1	2																				INOUE Hidetoshi	
General	Compulsory	English I B-2	6116	School Credit	1			2																		INOUE Hidetoshi	
General	Compulsory	Introduction to Active Learning	6117	School Credit	1	2																				TAKEDA Naho,MIZUNO Yuki,KUBOTA Ikumi	
General	Compulsory	Introduction to Data Science	6118	School Credit	1	2																				TSUCHIDA Takayuki,NOMURA Hayato	
General	Compulsory	Exercise in Data Science	6119	School Credit	1			2																		TSUCHIDA Takayuki,NOMURA Hayato	
General	Elective	Music-1	6120	School Credit	1	2																				IZUMI Yuka	
General	Elective	Music-2	6121	School Credit	1			2																		IZUMI Yuka	
General	Elective	Art-1	6122	School Credit	1	2																				OHNO Ryohei	
General	Elective	Art-2	6123	School Credit	1			2																		OHNO Ryohei	
General	Compulsory	Japanese Ⅰ-1	6124	School Credit	3	6																				KUBOTA Ikumi	
General	Compulsory	Japanese Ⅰ-2	6125	School Credit	2			4																		KUBOTA Ikumi	
General	Compulsory	Japanese Culture and Society	6126	School Credit	1	2																				KUBOTA Ikumi	
Specialized	Compulsory	Literacy for Disaster Risk Reduction	6127	School Credit	1			2																		MOTOZUKA Tomoki,YEGANE GHEZELLOO	
Specialized	Compulsory	Electric Circuits I	6128	Academic Credit	2	2																				OHMUKAI Masato	
Specialized	Compulsory	Computer Programming I	6129	Academic Credit	2			2																		HIRANO Masatsugu	
Specialized	Compulsory	Computer Literacy A	6130	School Credit	1	2																				HIRANO Masatsugu	

Specialized	Compulsory	Computer Literacy B	6131	School Credit	1	2	HAMADA Yukihiro	
Specialized	Compulsory	Fundamental Experiments of Electrical＆Computer Engineering	6132	School Credit	1	2	KAJIMURA Yoshihiro,HIROTA Atsushi	
Specialized	Compulsory	Fundamentals of Engineering	6133	School Credit	1	2	KUBOTA Ikumi	
General	Compulsory	Japanese II-1	6201	School Credit	1	2	TANGE Atsuko	
General	Compulsory	Japanese II-2	6202	School Credit	1	2	TANGE Atsuko	
General	Compulsory	Introduction to Global Studies	6203	School Credit	1	2		
General	Compulsory	Public	6204	School Credit	1	2		
General	Compulsory	Mathematics Ⅱ A-1	6205	School Credit	2	4	MATSUMIYA Atusi,	
General	Compulsory	Mathematics Ⅱ A-2	6206	School Credit	2	4	MATSUMIYA Atusi,OMODA Yasuhiro	
General	Compulsory	Mathematics Ⅱ B-1	6207	School Credit	1	2	TAKATA Isao	
General	Compulsory	Mathematics Ⅱ B-2	6208	School Credit	1	2	TAKATA Isao	
General	Compulsory	Science Ⅱ A-1	6209	School Credit	1	2	TAKEUCHI Masahiro	
General	Compulsory	Science Ⅱ A-2	6210	School Credit	1	2	TAKEUCHI Masahiro,	
General	Compulsory	Science Ⅱ B-1	6211	School Credit	1	2	SAKURAI Yasuhiro	
General	Compulsory	Science Ⅱ B-2	6212	School Credit	1	2	SAKURAI Yasuhiro	
General	Compulsory	Physical Education II-1	6213	School Credit	1	2	GOTOH Takayuki,MAEDA Tadanori	

General	Compulsory	Physical Education II-2	6214	School Credit	1							2														GOTOH Takayuki,MAEDA Tadanori	
General	Compulsory	English II A-1	6215	School Credit	1					2																HERBERT John C.	
General	Compulsory	English II A-2	6216	School Credit	1							2														INOUE Hidetoshi	
General	Compulsory	English II B-1	6217	School Credit	1					2																KITAGAWA Chiho	
General	Compulsory	English II B-2	6218	School Credit	1							2														KITAGAWA Chiho	
General	Compulsory	Ｃｏ＋ｗｏｒｋＩＡ	6219	School Credit	1					2																All faculty	
General	Compulsory	Ｃｏ＋ｗｏｒｋＩＢ	6220	School Credit	1							2														All faculty	
General	Elective	ICT Qualification I	6221	School Credit	1					1		1														TAKEUCHI Masahiro	
General	Elective	Mathematics Certification I	6222	School Credit	1					1		1														OMODA Yasuhiro	
General	Compulsory	Japanese Ⅱ-1	6223	School Credit	2					4																KUBOTA Ikumi	
General	Compulsory	Japanese Ⅱ-2	6224	School Credit	1							2														KUBOTA Ikumi	
General	Compulsory	Japanese Practice I	6225	School Credit	1							2														KUBOTA Ikumi	
Specialized	Compulsory	Electric Circuits Ⅱ A	6226	Academic Credit	2					2																KAJIMURA Yoshihiro	
Specialized	Compulsory	Electric Circuits Ⅱ B	6227	Academic Credit	2							2														KAJIMURA Yoshihiro	
Specialized	Compulsory	Computer Programming Ⅱ A	6228	Academic Credit	2					2																TSUCHIDA Takayuki	
Specialized	Compulsory	Computer Programming Ⅱ B	6229	Academic Credit	2							2														HIRANO Masatsugu	
Specialized	Compulsory	Electrical and Electronic Measurement A	6230	School Credit	1					2																HOSOKAWA Atsuishi	

Specialized	Compulsory	Electrical and Electronic Measurement B	6231	School Credit	1		2		HOSOKAWA Atsuishi	
Specialized	Compulsory	Microcomputer	6232	Academic Credit	2		2		NOMURA Hayato	
Specialized	Compulsory	Experiments of Electrical and Computer Engineering I	6233	School Credit	2		4		KAJIMURA Yoshihiro,SUYAMA Taikei, HOSOKAWA Atsuishi,	
General	Compulsory	Japanese III -1	6301	School Credit	1		2		TANGE Atsuko	
General	Compulsory	Japanese III -2	6302	School Credit	1		2			
General	Compulsory	Political Science-1	6303	School Credit	1		2			
General	Compulsory	Political Science-2	6304	School Credit	1		2			
General	Compulsory	Mathematics Ⅲ A-1	6305	Academic Credit	2		2		MATSUMIYA Atusi	
General	Compulsory	Mathematics Ⅲ A-2	6306	Academic Credit	2		2		MATSUMIYA Atusi	
General	Compulsory	Mathematics Ⅲ B	6307	Academic Credit	2		2			
General	Compulsory	Basic Mechanics	6308	Academic Credit	2		2		OGASAWARA Hiromichi	
General	Compulsory	Science Ⅲ -1	6309	School Credit	1		2		SAKURAI Yasuhiro	
General	Compulsory	Science Ⅲ -2	6310	School Credit	1		2		SAKURAI Yasuhiro	
General	Compulsory	Physical Education III-1	6311	School Credit	1		2		GOTOH Takayuki,ISHIDA Masami	
General	Compulsory	Physical Education III-2	6312	School Credit	1		2		ISHIDA Masami,MAEDA Tadanori	

General	Compulsory	English Ⅲ-1	6313	School Credit	1									2										MORIMOTO Nana	
General	Compulsory	English Ⅲ-2	6314	School Credit	1										2									MORIMOTO Nana	
General	Compulsory	English Conversation I-1	6315	School Credit	1									2										HERBERT John C.	
General	Compulsory	English Conversation I-2	6316	School Credit	1										2									HERBERT John C.	
General	Compulsory	Ｃｏ＋ｗｏｒｋⅡA	6317	School Credit	1									2										All faculty	
General	Compulsory	Ｃｏ＋ｗｏｒｋⅡB	6318	School Credit	1										2									All faculty	
General	Elective	ICT Qualification Ⅱ	6319	School Credit	1									1	1									TAKEUCHI Masahiro	
General	Elective	Mathematics Certification Ⅱ	6320	School Credit	1									1	1									OMODA Yasuhiro	
General	Elective	Overseas Training Ⅰ	6321	School Credit	1									1	1									All faculty of the department	
General	Compulsory	Japanese Ⅲ-1	6322	School Credit	2									4										KUBOTA Ikumi	
General	Compulsory	Japanese Ⅲ-2	6323	School Credit	1										2									KUBOTA Ikumi	
General	Compulsory	Japanese Practice Ⅱ	6324	School Credit	1										2									KUBOTA Ikumi	
Specialized	Compulsory	Electromagnetics Ⅰ	6325	Academic Credit	2										2									OHMUKAI Masato	
Specialized	Compulsory	Circuit Theory A	6326	School Credit	1									2										HOSOKAWA Atsushi	
Specialized	Compulsory	Circuit Theory B	6327	School Credit	1										2									SUYAMA Taikei	
Specialized	Compulsory	Introduction to Electrical Engineering	6328	Academic Credit	2									2										HIROTA Atsushi	
Specialized	Compulsory	Introduction to Computer Engineering	6329	Academic Credit	2										2									TSUCHIDA Takayuki	

Specialized	Compulsory	Digital Circuits A	6330	School Credit	1	2	HOSOKAWA Atsuishi	
Specialized	Compulsory	Digital Circuits B	6331	School Credit	1	2	OHMUKAI Masato	
Specialized	Compulsory	Experiments of Electrical and Computer EngineeringⅡA	6332	School Credit	2	4	SUYAMA Taikei, HOSOKAWA Atsuishi,HIROTA Atsushi,	
Specialized	Compulsory	Experiments of Electrical and Computer EngineeringⅡB	6333	School Credit	2	4	SUYAMA Taikei, HIROTA Atsushi,	

Akashi College	Year	2024	Course Title	Japanese I-1

Course Information

Course Code	6101	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	『精選現代の国語』（明治書院）、『精選言語文化』（第一学習社）、『新訂総合国語便覧』（第一学習社）		
Instructor			

Course Objectives

1) 論理的な文章（論説や評論）の構成や展開を的確にとらえ、要約することができる。
2) 文学的な文章（小説や随筆）に描かれた人物やものの見方を表現に即して読み取り、自分の意見を述べることができる。
3) 日常的に用いられる漢字や語句を正しく理解し、活用することができる。

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	構成と展開を説明すること、大意をとらえて要約することができる。	構成を説明し、要約することができる。	要旨は分かるが、構成をとらえられない。
評価項目2	人物形象から主題をとらえ、批判的に考察することができる。	登場人物の整理ができ、主題がとらえられる。	人物造型の違いは把握できるが、主題がとらえられない。
評価項目3	日常的に用いられる漢字や語句を正しく理解し、日常生活や研究の中で自由に活用することができる。	日常的に用いられる漢字や語句に関心を持ち、吸収しようと心がけることができる。	日常的に用いられる漢字や語句について、理解が十分でない。

Assigned Department Objectives

Teaching Method

Outline	小説や評論、古典文学など、様々な文章を読むことを通して、豊かな感性と論理的思考力を養い、的確な読解力と表現力を獲得する。
Style	講義形式を基本とする。随時、小テストや課題を課す。
Notice	国語は理科系科目も含めすべての教科の基礎であることを念頭に、予習・復習を怠らず積極的に授業に取り組むこと。 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
1st Semester	1st Quarter	1st	授業ガイダンス、「「ふと」と「思わず」」の読解	授業の進行・準備物について理解することができる
		2nd	「「ふと」と「思わず」」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		3rd	「「ふと」と「思わず」」の読解	内容を理解した上で、自分の意見を述べることができる
		4th	「羅生門」の読解	表現に即して内容を理解することができる
		5th	「羅生門」の読解	表現に即して登場人物の人物像を読み取ることができる
		6th	「羅生門」の読解	登場人物たちのやり取りを適切に理解し、物語の展開を読み取ることができる
		7th	「羅生門」の読解	主題を理解し、作品に対する自分の意見を述べることができる
		8th	「羅生門」の読解	作品の特徴を文学史的位置を含めて理解することができる
	2nd Quarter	9th	「上手い、おもしろい」の読解	テキストに用いられている語句・表現を適切に理解することができる
		10th	「上手い、おもしろい」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		11th	「上手い、おもしろい」の読解	内容を理解した上で、自分の意見を述べることができる
		12th	「枕草子」の読解	文学史上の評価を理解し、文意をとらえることができる
		13th	「枕草子」の読解	適切に解釈し、教科書の設問に答えることができる
		14th	唐詩の読解	漢詩のきまりを理解した上で個々の作品を鑑賞することができる
		15th	唐詩の読解	漢詩のきまりを理解した上で個々の作品を鑑賞し、作品を評価することができる
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	小テスト	態度	その他	Total
Subtotal	80	10	10	0	100
基礎的能力	80	10	10	0	100

専門的能力	0	0	0	0	0
分野横断的能力	0	0	0	0	0

Akashi College	Year	2024	Course Title	Japanese I-2

Course Information

Course Code	6102	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	『精選現代の国語』（明治書院）、『精選言語文化』（第一学習社）、『新訂総合国語便覧』（第一学習社）		
Instructor			

Course Objectives

1) 論理的な文章（論説や評論）の構成や展開を的確にとらえ、要約することができる。
2) 文学的な文章（小説や随筆）に描かれた人物やものの見方を表現に即して読み取り、自分の意見を述べることができる。
3) 整理した情報をもとに、主張が効果的に伝わるように論理の構成や展開を工夫した報告を行ったり、文章を作成したりすることができる。

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	構成と展開を説明すること、大意をとらえて要約することができる。	構成を説明し、要約することができる。	要旨は分かるが、構成をとらえられない。
評価項目2	人物形象から主題をとらえ、批判的に考察することができる。	登場人物の整理ができ、主題がとらえられる。	人物造型の違いは把握できるが、主題がとらえられない。
評価項目3	明確な意見、結論を論理的、実証的文章として構成、展開することができる。	明確な意見とそれを表す段落構成を作成することができる。	結論、意見を設け、段落分けできるが論理性・実証性に乏しい。

Assigned Department Objectives

Teaching Method

Outline	小説や評論、古典文学など、様々な文章を読むことを通して、豊かな感性と論理的思考力を養い、的確な読解力と表現力を獲得する。
Style	講義形式を基本とする。随時、小テストや課題を課す。
Notice	国語は理科系科目も含めすべての教科の基礎であることを念頭に、予習・復習を怠らず積極的に授業に取り組むこと。 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	3rd Quarter	1st	授業ガイダンス、「漢文脈と近代日本」の読解	テキストに用いられている語句・表現を適切に理解することができる
		2nd	「漢文脈と近代日本」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		3rd	「漢文脈と近代日本」の読解	内容を理解した上で、自分の意見を述べることができる
		4th	「蛇足」の読解	漢文の基本的読解法を理解し、適切に音読することができる
		5th	「論語」の読解	内容を理解し、文化的影響をとらえることができる
		6th	「論語」の読解	適切に解釈し、教科書の設問に答えることができる
		7th	「桃花源記」の読解	適切に解釈し、教科書の設問に答えることができる
		8th	「桃花源記」の読解	適切に解釈し、教科書の設問に答えることができる
	4th Quarter	9th	「平家物語」の読解	文学史上の評価を理解し、文意をとらえることができる
		10th	「平家物語」の読解	人物造型を把握し、作者の主題意識を理解することができる
		11th	「平家物語」の読解	読み本系・語り本系の違いを念頭に、場面の特徴を理解することができる
		12th	「平家物語」の読解	主題を理解し、作品に対する自分の意見を述べることができる
		13th	「マルジャーナの知恵」の読解	テキストに用いられている語句・表現を適切に理解することができる
		14th	「マルジャーナの知恵」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		15th	「マルジャーナの知恵」の読解	内容を理解した上で、自分の意見を述べることができる
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	小テスト	態度	その他	Total
Subtotal	80	10	10	0	100
基礎的能力	80	10	10	0	100
専門的能力	0	0	0	0	0
分野横断的能力	0	0	0	0	0

Akashi College	Year	2024	Course Title	History-1

Course Information

Course Code	6103	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer 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	20	5	5	0	0	100
Basic Proficiency	70	20	5	5	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	History-2

Course Information

Course Code	6104	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer 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 (%)

	Examination	Submissions	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	70	20	5	5	0	0	100
Basic Proficiency	70	20	5	5	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 Ⅰ A-1

Course Information

Course Code	6105	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 2
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First Semester	Classes per Week	4
Textbook and/or Teaching Materials	新基礎数学　改訂版　高遠節夫ほか著（大日本図書）、同問題集		
Instructor	OMODA Yasuhiro		

Course Objectives

1) 数と式の計算を理解し、計算することができる。
2) 方程式と不等式を理解し、解くことができる。
3) 関数とグラフを理解し、使うことができる。

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
1) 数と式の計算を理解し、計算することができる。	数と式の計算をすることができる。	数と式の計算を理解できる。	数と式の計算を理解できない。
2) 方程式と不等式を理解し、解くことができる。	方程式と不等式を解くことができる。	方程式と不等式を理解できる。	方程式と不等式を理解できない。

Assigned Department Objectives

Teaching Method

Outline	基本的な数式の計算能力および論理的思考能力を養うことを目標とし、高専で必要な数学の基礎を身につける。
Style	教科書に沿って講義や質問を行いながら理解度を確認し、発表課題を用いた問題演習を行う。
Notice	予習復習をきちんとすること。分からないことは放置せず質問すること。問題集などを利用して自主的に勉強してほしい。 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
1st Semester	1st Quarter	1st	数と式の計算	授業の準備をする。また、整式の加法・減法・乗法の計算ができる。
		2nd	数と式の計算	指数法則や展開公式を使うことができる。また、簡単な因数分解をすることができる。
		3rd	数と式の計算	整式の除法を計算することができる。また、因数定理を使って高次多項式を因数分解することができる。
		4th	数と式の計算	分数式の加減乗除の計算ができる。
		5th	数と式の計算	実数・絶対値の意味を理解することができる。また、複素数の相等を理解し、その加減乗除の計算ができる。
		6th	総括	試験により学習内容の定着度を確認し、振り返りを行う。
		7th	方程式と不等式	2次方程式を解くことができる。解と係数の関係式を使える。
		8th	方程式と不等式	連立方程式を解くことができる。また、分数方程式・無理方程式を解くことができる。
	2nd Quarter	9th	方程式と不等式	恒等式を理解し、部分分数分解をすることができる。また、いろいろな等式の証明をすることができる。
		10th	方程式と不等式	１次不等式を解くことができる。また、２次不等式を解くことができる。不等式の証明をすることができる
		11th	方程式と不等式	集合を理解し集合を求めることができる。
		12th	方程式と不等式	命題の真偽を判定することができる。
		13th	総括	試験により学習内容の定着度を確認し、振り返りを行う。
		14th	総括	学習内容の定着度を確認し、振り返りを行う
		15th	展望	今後学ぶ内容を展望する。
		16th	なし	

Evaluation Method and Weight (%)

	試験	課題発表	出席・学習状況	Total
Subtotal	30	40	30	100
基礎的能力	30	40	30	100
専門的能力	0	0	0	0
分野横断的能力	0	0	0	0

Akashi College	Year	2024	Course Title	Mathematics Ⅰ A-2

Course Information

Course Code	6106	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 2
Department	Electrical and Computer Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	4
Textbook and/or Teaching Materials	Fundamental Mathematics (Dai Nihon Tosho)		
Instructor			

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 nt 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 (%)

	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	2024	Course Title	Mathematics Ⅰ B-1

Course Information

Course Code	6107	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer 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			

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	2024	Course Title	Mathematics Ⅰ B-2

Course Information

Course Code	6108	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer 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			

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

			Theme	Goals
2nd Semester	3rd Quarter	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	2024	Course Title	Science Ⅰ-1

Course Information

Course Code	6109	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer 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	2024	Course Title	Science Ⅰ-2

Course Information

Course Code	6110	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer 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	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	2024	Course Title	Physical Education I-1

Course Information

Course Code	6111	Course Category	General / Compulsory
Class Format	講義・実技	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First 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: 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	Guidance	Understand the purposes and objectives of this course. Reacknowledge that warm-ups are necessary to safely exercise.
		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 I-2

Course Information

Course Code	6112	Course Category	General / Compulsory
Class Format	講義・実技	Credits	School Credit: 1
Department	Electrical and Computer 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: 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	Health (joint class with Hyogo University Department of Nursing)	Reflect on their own health and take the opportunity to reconsider their future lifestyles.
		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 I A-1

Course Information

Course Code	6113	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Creative English Communication I		
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	1st Quarter	1st	Course guidance (Course progress method, learning method, etc.)	Understand course content and assignments.
		2nd	Lesson 1 Part 1/2	Based on the content learned in junior high school understand English language basic structure.
		3rd	Lesson 1 Part 3/4	Based on the content learned in junior high school understand English language basic structure.
		4th	Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.
		5th	Lesson 2 Part 1/2	Based on the content learned in junior high school understand English language basic structure.
		6th	Lesson 2 Part 3/4	Based on the content learned in junior high school understand English language basic structure.
		7th	Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.
		8th	Lesson 3 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.

	2nd Quarter	9th	Lesson 3 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.
		10th	Language and Culture Workshop	Learn the vocabulary and grammar rules set as lesson tasks.
		11th	Public speaking	Make a speech and learn how to deliver a message.
		12th	Public speaking	Make a speech and learn how to deliver a message.
		13th	Public speaking	Make a speech and learn how to deliver a message.
		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	Presentation	Quizes	Behavior	Portfolio	Other	Total
Subtotal	40	30	30	0	0	0	100
Basic Proficiency	0	0	30	0	0	0	30
Specialized Proficiency	40	0	0	0	0	0	40
Cross Area Proficiency	0	30	0	0	0	0	30

Akashi College	Year	2024	Course Title	English I A-2

Course Information

Course Code	6114	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	Creative English Communication I		
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	3rd Quarter	1st	Go over the previous lessons	To overcome weak points
		2nd	Lesson 7 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		3rd	Lesson 7 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.
		4th	Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.
		5th	Lesson 8 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		6th	Lesson 8 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.
		7th	Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.
		8th	Lesson 9 Part 1/2	Understanding the cross-cultural communication through authentic materials.
	4th Quarter	9th	Lesson 9 Part 3/4	Learn the vocabulary and grammar rules set as lesson tasks.

		10th	Language and Culture Workshop	Learn the vocabulary and grammar rules set as lesson tasks.
		11th	Presentation	Learn how to communicate with others and make a presentation in public.
		12th	Presentation	Learn how to communicate with others and make a presentation in public.
		13th	Presentation	Learn how to communicate with others and make a presentation in public.
		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	Presentation	Quizes	Behavior	Portfolio	Other	Total
Subtotal	40	30	30	0	0	0	100
Basic Proficiency	0	0	30	0	0	0	30
Specialized Proficiency	40	0	0	0	0	0	40
Cross Area Proficiency	0	30	0	0	0	0	30

Akashi College	Year	2024	Course Title	English I B-1

Course Information

Course Code	6115	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	(1) Vision Quest (参考書・問題集・Workbook)　(2) データベース4800　(3) ネクステージ 4th Edition		
Instructor	INOUE Hidetoshi		

Course Objectives

1）中学で既習の文法に加え、高等学校学習指導要領に準じた文法を習得して適切に運用できる。
2）中学で既習の語彙の定着を図り、高等学校学習指導要領に準じた新出語彙を習得して適切に運用できる。
3）平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができる。
4）明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できる。

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
1）中学で既習の文法に加え、高等学校学習指導要領に準じた文法を習得して適切に運用できる。	高等学校学習指導要領に準じた文法を十分に習得して適切に運用できる。	高等学校学習指導要領に準じた文法を習得して適切に運用できる。	高等学校学習指導要領に準じた文法を習得して適切に運用できない。
2）中学で既習の語彙の定着を図り、高等学校学習指導要領に準じた新出語彙を習得して適切に運用できる。	高等学校学習指導要領に準じた新出語彙を十分に習得して適切に運用できる。	高等学校学習指導要領に準じた新出語彙を習得して適切に運用できる。	高等学校学習指導要領に準じた新出語彙を習得して適切に運用できない。
3）平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができる。	平易な英語で書かれた文章を読み、その概要を把握し必要な情報を十分に読み取ることができる。	平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができる。	平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができない。
4）明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できる。	明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を十分に習得して適切に運用できる。	明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できる。	明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できない。

Assigned Department Objectives

Teaching Method

Outline	英語を実践的に使うために必要な文法事項を定着させコミュニケーション能力を養成する。 語彙増強も念頭に置き、英語の運用能力を高める。
Style	毎回、英文法の該当箇所を予習した上で授業に出席すること。
Notice	小テストは語彙を増やす良い機会として、十分に活用すること。 遅刻や欠席による小テストの未受験は0点の扱いとする。 合格の対象としない欠席条件（割合）　1/4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	授業ガイダンス（授業の進行方法、学習方法など）	授業内容や課題について理解する。
		2nd	文の種類	レッスンの課題として設定されている語彙・文法などを習得する。
		3rd	文型と動詞 1	レッスンの課題として設定されている語彙・文法などを習得する。
		4th	文型と動詞 2	レッスンの課題として設定されている語彙・文法などを習得する。
		5th	時制 1	レッスンの課題として設定されている語彙・文法などを習得する。
		6th	時制 2	レッスンの課題として設定されている語彙・文法などを習得する。
		7th	課題チェック、振り返り	これまでの学習内容の振り返りと質疑応答を通して理解度の定着を目指す。
		8th	中間試験実施	これまでの学習内容の理解力を試す。
	2nd Quarter	9th	中間試験返却および解説	今後に向けての課題発見と対策を検討する。
		10th	完了形 1	レッスンの課題として設定されている語彙・文法などを習得する。
		11th	完了形 2	レッスンの課題として設定されている語彙・文法などを習得する。
		12th	助動詞 1	レッスンの課題として設定されている語彙・文法などを習得する。
		13th	助動詞 2	レッスンの課題として設定されている語彙・文法などを習得する。
		14th	助動詞 3	レッスンの課題として設定されている語彙・文法などを習得する。
		15th	課題チェック、振り返り	これまでの学習内容の振り返りと質疑応答を通して理解度の定着を目指す。

		16th	期末試験実施	これまでの学習内容の理解力を試す。

Evaluation Method and Weight (%)

	試験	課題提出	小テスト	その他	Total
Subtotal	60	20	20	0	100
基礎的能力	60	20	20	0	100
専門的能力	0	0	0	0	0
分野横断的能力	0	0	0	0	0

Akashi College	Year	2024	Course Title	English I B-2

Course Information

Course Code	6116	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	(1) Vision Quest (参考書・問題集・Workbook)　(2) データベース4800　(3) ネクステージ 4th Edition		
Instructor	INOUE Hidetoshi		

Course Objectives

1）中学で既習の文法に加え、高等学校学習指導要領に準じた文法を習得して適切に運用できる。
2）中学で既習の語彙の定着を図り、高等学校学習指導要領に準じた新出語彙を習得して適切に運用できる。
3）平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができる。
4）明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できる。

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
1）中学で既習の文法に加え、高等学校学習指導要領に準じた文法を習得して適切に運用できる。	高等学校学習指導要領に準じた文法を十分に習得して適切に運用できる。	高等学校学習指導要領に準じた文法を習得して適切に運用できる。	高等学校学習指導要領に準じた文法を習得して適切に運用できない。
2）中学で既習の語彙の定着を図り、高等学校学習指導要領に準じた新出語彙を習得して適切に運用できる。	高等学校学習指導要領に準じた新出語彙を十分に習得して適切に運用できる。	高等学校学習指導要領に準じた新出語彙を習得して適切に運用できる。	高等学校学習指導要領に準じた新出語彙を習得して適切に運用できない。
3）平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができる。	平易な英語で書かれた文章を読み、その概要を把握し必要な情報を十分に読み取ることができる。	平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができる。	平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができない。
4）明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できる。	明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を十分に習得して適切に運用できる。	明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できる。	明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できない。

Assigned Department Objectives

Teaching Method

Outline	英語を実践的に使うために必要な文法事項を定着させコミュニケーション能力を養成する。 語彙増強も念頭に置き、英語の運用能力を高める。
Style	毎回、英文法の該当箇所を予習した上で授業に出席すること。
Notice	小テストは語彙を増やす良い機会として、十分に活用すること。 遅刻や欠席による小テストの未受験は0点の扱いとする。 合格の対象としない欠席条件（割合）　1/4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	3rd Quarter	1st	受動態	レッスンの課題として設定されている語彙・文法などを習得する。
		2nd	不定詞 1	レッスンの課題として設定されている語彙・文法などを習得する。
		3rd	不定詞 2	レッスンの課題として設定されている語彙・文法などを習得する。
		4th	不定詞 3	レッスンの課題として設定されている語彙・文法などを習得する。
		5th	動名詞	レッスンの課題として設定されている語彙・文法などを習得する。
		6th	分詞 1	レッスンの課題として設定されている語彙・文法などを習得する。
		7th	課題チェック、振り返り	これまでの学習内容の振り返りと質疑応答を通して理解度の定着を目指す。
		8th	中間試験実施	これまでの学習内容の理解力を試す。
	4th Quarter	9th	中間試験返却および解説	今後に向けての課題発見と対策を検討する。
		10th	分詞 2	レッスンの課題として設定されている語彙・文法などを習得する。
		11th	関係詞 1	レッスンの課題として設定されている語彙・文法などを習得する。
		12th	関係詞 2	レッスンの課題として設定されている語彙・文法などを習得する。
		13th	関係詞 3	レッスンの課題として設定されている語彙・文法などを習得する。
		14th	比較 1	レッスンの課題として設定されている語彙・文法などを習得する。

		15th	課題チェック、振り返り	これまでの学習内容の振り返りと質疑応答を通して理解度の定着を目指す。
		16th	期末試験実施	これまでの学習内容の理解力を試す。

Evaluation Method and Weight (%)

	試験	課題提出	小テスト	その他	Total
Subtotal	60	20	20	0	100
基礎的能力	60	20	20	0	100
専門的能力	0	0	0	0	0
分野横断的能力	0	0	0	0	0

Akashi College	Year	2024	Course Title	Introduction to Active Learning

Course Information

Course Code	6117	Course Category	General / Compulsory
Class Format	Seminar	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	授業内で適宜資料を配布する。		
Instructor	TAKEDA Naho,MIZUNO Yuki,KUBOTA Ikumi		

Course Objectives

自らの興味・関心を把握し、さらに他者と共有する。自ら調べ、共に考え行動し、振り返る能動的な学びを体験し、基盤となるマインド、知識や技能を取得していく。
互いに学びあう関係性づくりの考え方を知り、個人の興味関心とともにチームでの問題解決に取り組み、最適解を目指す学びを体験する。
以上の科目の目的をふまえ、以下の３点を到達目標とする。
1) 他者とコミュニケーションを取ろうとすることができる。
2) 他者の話を聴こうとすることができる。
3) 自分自身を振り返ろうとすることができる。

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	他者とコミュニケーションを取ることができる。	他者とコミュニケーションを取ろうとすることができる。	他者とコミュニケーションを取ろうとすることができない。
評価項目2	他者の話を聴くことができる。	他者の話を聴こうとすることができる。	他者の話を聴こうとすることができない。
評価項目3	自分自身を振り返ることができる。	自分自身を振り返ろうとすることができる。	自分自身を振り返ろうとすることができない。

Assigned Department Objectives

Teaching Method

Outline	高等教育機関である高専では「自ら課題を設定し、それにふさわしい解を見つけ出す」ことが求められます。この授業では、自他を知り、学びあう関係性をあたため、チームでの問題解決に取り組み、「答え」をつくるという一連の流れにより、高専での学びにおける基礎的な力を身につけることを目的としています。
Style	個人ワークやグループワークを通じて、さまざまな探求の方法を学びます。成績評価は、講義内でのグループワーク、個人ワークの成果物、振返りの内容で判断します。また、評価ポイントとしては、それぞれの成果物の中で、相手に伝わる表現力、自分の出した答えまでの筋道を整理する論理的思考力、相手のフィードバックを受け取ってから自分の考えを内省する内省力などを評価します。 授業計画に示す３名の担当教員が、分担して講義を担当します。 連絡員：武田 字浦
Notice	評価の対象としない欠席条件(割合)：1/4以上の欠課。 学生同士の議論等を中心に参加型学習の手法によって展開します。自らの考えを声に出し、他者の声に丁寧に耳を傾けることで学びが豊かになるため、学びの場を共につくる過程に積極的に参与してください。

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	オリエンテーション（全員）	授業の概要と目的を理解する。
		2nd	自己紹介＆お互いを知ろう（武田）	共に授業を受ける仲間について知る。
		3rd	科学的な文章表現（久保田）	根拠となる論文を適切に引用して、序論・本論・結論からなる文章を作成して自身の主張を示すことができる。
		4th	問題定義の基礎（武田）	現状と目標の明文化により問題を定義した上で、発想法を用いて問題の解決策を提案することができる。
		5th	問題定義の応用（武田）	問題定義の技術や発想法を活用し、他者へのヒアリング内容をもとに問題の定義や解決策について検討する。
		6th	コミュニケーション①（久保田）	対話的なコミュニケーションに必要な傾聴と質問の技術について理解し、実践する。
		7th	コミュニケーション②（久保田）	さまざまな問題・課題を論じるために必要なディスカッションの手法について理解し、実践する。
		8th	チームワーク①（久保田）	仲間との学び合いを実践する。
	2nd Quarter	9th	チームワーク②（久保田）	チームでの問題解決を実践する。
		10th	答えのない問い 社会編①（水野）	複雑性や不確実性の高い社会の中で対象を分析するための様々な手法を理解する。
		11th	答えのない問い 社会編②（水野）	複雑性や不確実性の高い社会の中で価値を創造するための考え方を理解する。
		12th	答えのない問い 科学編①（武田）	科学技術と社会の関係を踏まえて、専門分野間の共通点・相違点を知り、異分野協働の重要性を理解する。
		13th	答えのない問い 科学編②（武田）	科学技術と社会の関係を踏まえて、立てた問いや導いた答えを伝えるための手法を理解する。
		14th	まとめ①（武田）	この授業での学びについて振り返り、これからの学び方について他者に話すことができる。

		15th	まとめ②（武田）	この授業での学びについて振り返り、これからの学び方について他者に提案することができる。
		16th		

Evaluation Method and Weight (%)

	レポート	発表・フィードバック	振返り課題	授業への取組み状況	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	2024	Course Title	Introduction to Data Science

Course Information

Course Code	6118	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer 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	2024	Course Title	Exercise in Data Science

Course Information

Course Code	6119	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	Second 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 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	2024	Course Title	Music-1

Course Information

Course Code	6120	Course Category	General / Elective
Class Format	Skill	Credits	School Credit: 1
Department	Electrical and Computer 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	Pratical 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	Pratical 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	2024	Course Title	Music-2

Course Information

Course Code	6121	Course Category	General / Elective
Class Format	Skill	Credits	School Credit: 1
Department	Electrical and Computer 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. Use a knowledge of chord names to create a cappella chorus harmonies.
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 could freely use their knowledge of chord names to create a cappella chorus harmonies.	The student could use their knowledge of chord names to create a cappella chorus harmonies.	The student could not use their knowledge of chord names to create a cappella chorus harmonies.
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	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	Pratical Test	Short Singing Test	Chord Test	Other	Total
Subtotal	10	15	35	20	20	0	100
Basic Proficiency	10	5	10	15	20	0	60
Specialized Proficiency	0	5	15	0	0	0	20
Cross Area Proficiency	0	5	10	5	0	0	20

Akashi College	Year	2024	Course Title	Art-1

Course Information

Course Code	6122	Course Category	General / Elective
Class Format	Skill	Credits	School Credit: 1
Department	Electrical and Computer 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-dimmensional portraying (sketching), 3-dimmensional 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	2024	Course Title	Art-2

Course Information

Course Code	6123	Course Category	General / Elective
Class Format	Skill	Credits	School Credit: 1
Department	Electrical and Computer 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-dimmensional portraying (sketching), 3-dimmensional 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	2024	Course Title	Literacy for Disaster Risk Reduction

Course Information

Course Code	6127	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer 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	2024	Course Title	Electric Circuits I

Course Information

Course Code	6128	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	教科書：金原粲:電気回路改訂版、実教出版		
Instructor	OHMUKAI Masato		

Course Objectives

[1]電圧と電流および抵抗の関係について理解し説明ができ、これらの計算ができる。
[2]回路方程式を立てることができ、これを解いて具体的な数値を用いて計算ができる。
[3]テブナンの定理およびノートンの定理の関係を理解し説明ができ、回路の等価回路化と計算ができる。

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]	電圧と電流および抵抗の関係について理解し説明ができ、これらの計算ができる。	電圧と電流および抵抗の関係について理解し説明ができる。	電圧と電流および抵抗の関係について理解し説明ができない。
評価項目[2]	回路方程式を立てることができ、これを解いて具体的な数値を用いて計算ができる。	回路方程式を立てることができる。	回路方程式を立てることができない。
評価項目[3]	テブナンの定理およびノートンの定理の関係を理解し説明ができ、回路の等価回路化と計算ができる。	テブナンの定理およびノートンの定理の関係を理解し説明ができる。	テブナンの定理およびノートンの定理の関係を理解し説明ができない。

Assigned Department Objectives

Teaching Method

Outline	中学校で学んだ電気の知識を基礎にして直流回路をマスターする。ここで、回路中の電流、電圧、電力などの計算ができることを目標とする。直流回路は、今後学ぶ交流回路の基礎となるだけでなく電気回路、電子回路の基本であり重要なテーマである。
Style	講義形式により重要な概念の解説を行い、より深く理解するために、周囲とのコミュニケーションを交えた自習をおこなう。最後には小テストを行い理解度チェックを実施する。宿題は自力で調べながら学習するもので、試験範囲にも入る。
Notice	本科目は，授業で保証する学習時間と，予習・復習及び課題レポート作成に必要な標準的な自己学習時間の総計が，90時間に相当する学習内容である. 毎回出される宿題は期限までに必ず提出すること。わからないところを授業中に質問して解決していくプロセスが求められる。特に、電気回路をマスターするにはより多くの問題に触れることが大切である。評価の対象としない欠席条件（割合）>1/3以上

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	電気回路とは：抵抗、オームの法則、抵抗の直列接続と並列接続	オームの法則を理解し、電圧、電流などが計算できる。合成抵抗を計算できる。宿題：演習
		2nd	電気回路とは：分圧比と分流比、合成抵抗の求め方の応用	分流比と分圧比を利用することができる。高度な合成抵抗の求め方を習得する。宿題：演習（等電位法を含む）
		3rd	電源と電力：電圧源と電流源と内部抵抗、	電圧源、電流源の概念を理解する。等価回路の変換ができるようになる。宿題：演習
		4th	電源と電力：電力と電力量、最大電力伝送定理	電力と電力量の概念を理解する。最大電力伝送定理を使える。宿題：演習
		5th	確認テスト	６０点以上を取得する。
		6th	回路方程式：キルヒホッフの法則、ループ電流法	キルヒホッフの法則を理解し、ループ電流法の立式ができる。宿題：演習
		7th	回路方程式：ノード電圧法	ノード電圧法の立式ができる。宿題：演習
		8th	回路方程式：ブランチ電流法	ブランチ電流法の立式ができる。宿題：演習
	2nd Quarter	9th	いろいろな回路：ブリッジ回路	ホイートストンブリッジの平衡条件を理解し計算に使える。宿題：抵抗率
		10th	確認テスト	６０点以上を取得する。
		11th	いろいろな回路：Y結線とΔ結線	Δ−Y変換と逆変換の公式を導出できる。宿題：演習、抵抗の温度係数
		12th	いろいろな回路：重ね合わせの原理	電圧源の重ね合わせの原理を理解し、等価回路から電流計算ができる。宿題：演習、ミルマンの定理
		13th	いろいろな回路：テブナンの定理	テブナンの定理を利用して電流を計算できる。宿題：演習、電流計と分流器
		14th	いろいろな回路：ノートンの定理	ノートンの定理を利用して電圧を計算できる。宿題：演習、電圧計と分圧器
		15th	確認テスト	６０点以上を取得する。
		16th		

Evaluation Method and Weight (%)			
	試験	平常点	Total
Subtotal	50	50	100
基礎的能力	0	0	0
専門的能力	50	50	100
分野横断的能力	0	0	0

Akashi College	Year	2024	Course Title	Computer Programming I

Course Information

Course Code	6129	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	HIRANO Masatsugu		

Course Objectives

[1] Can perform basic Linux operations.
[2] Can write programs that contain conditional branches in C.
[3] Can write programs that contain iterations in C.
[4] Can write programs that contain arrays in C.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can perform basic Linux operations accurately.	Can perform basic Linux operations.	Cannot perform basic Linux operations.
Achievement 2	Can write programs that contain complex conditional branches in C.	Can write programs that contain conditional branches in C.	Cannot write programs that contain conditional branches in C.
Achievement 3	Can write programs that contain iterations in C in multiple ways.	Can write programs that contain iterations in C.	Cannot write programs that contain iterations in C
	Can write programs that use arrays and two-dimensional arrays in C.	Can write programs that use arrays in C.	Cannot write programs that use arrays in C.

Assigned Department Objectives

Teaching Method

Outline	The course will provide lectures and exercises on programming in C to establish a foundation for problem solving and programming skills.
Style	The first week will be in the classroom, and the from second week, the class will be in the Information Basics Lab. In the Information Basics Lab,, the class will alternate between explanations about the content you will learn for the week and doing programming exercises. Students are required to complete ten programming assignments.
Notice	This course's content will amount to 90 hours of study in total. These hours include learning time guaranteed in classes and the standard self-study time required for pre-study / review, and completing assignment reports. In addition to the lecture hours, students should visit the Information Basics Lab frequently and learn with the attitude, "practice makes perfect." Students who have submitted fewer than six programming assignments will not be eligible for a passing grade. 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	Basic knowledge of programming and information processing	Can list the components of a computer. Can use binary digits (integer and decimal), complement on 2, and 32-bit floating point numbers
		2nd	Linux, Emacs, compile, and run	Can perform basic Linux operations. Can write, compile, and run programs in C.
		3rd	Variables, types, outputs, inputs, basic operations	Can use variables, arithmetic operators, and simple assignment operators. Can use the basic types accordingly. Can write programs that contain data inputs and outputs.
		4th	Characters, hexadecimal numbers, exponents, loss of trailing digits	Can use characters, hexadecimal numbers, and exponents. Can explain what the loss of trailing digits mean.
		5th	Operators, logical operations, casts	Can use assignment operators. Can perform logical operations and casts.
		6th	Structured programming, conditional branches 1 of 2	Can explain what the structure theorem is. Can write if statements.
		7th	Conditional branches 2 of 2	Can write switch statements.
		8th	Midterm exam	
	4th Quarter	9th	Midterm exam comments, iteration 1 of 3	Understand where you made mistakes on the midterm exam. Can write do statements.
		10th	Iteration 2 of 3	Can write while and for statements.
		11th	Iteration 3 of 3	Can write nested iterative statements.
		12th	Arrays	Can explain sets and columns. Can scan, initialize, and copy arrays.
		13th	Algorithms and flowcharts	Can explain algorithms. Can write flowcharts.

		14th	Matrices and a two-dimensional arrays 1 of 2	Can add and subtract in matrices. Can add and subtract matrices using two-dimensional arrays.
		15th	Matrices and two-dimensional arrays 2 of 2	Can multiply matrices. Can multiply matrices using two-dimensional arrays.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	70	30	0	0	0	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	70	30	0	0	0	0	100
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Computer Literacy A

Course Information

Course Code	6130	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	HIRANO Masatsugu		

Course Objectives

(1) Understand basic knowledge of computer hardware and software.
(2) Understand basic knowledge of Markdown.
(3) Can input letters by touch typing.
(4) Understand how to use the Internet at school, and can act while keeping in mind the various rules in an information society.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can accurately explain the basic aspects of computer hardware and software.	Can explain the basic aspects of computer hardware and software.	Cannot explain the basic aspects of computer hardware and software.
Achievement 2	Can create complex documents using basic knowledge of Markdown.	Can create simple documents using basic knowledge of Markdown.	Cannot create simple documents using basic knowledge of Markdown.
Achievement 3	Can touch type at a sufficient speed.	Can touch type.	Cannot touch type.
Achievement 4	Can discuss with others about what they can do to make a better information society. Can think about problems that may arise in an information society, and handle them when they arise.	Can put the things they can do to make a better information society into action. Can communicate their ideas about problems that may arise in an information society, and how to 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.

Assigned Department Objectives

Teaching Method

Outline	Students will learn about computer software and basic knowledge of software and hardware, and acquire basic computer usage skills.
Style	Following the classroom lectures, students will have a lab.
Notice	Labs will make up a large proportion of the class, so students will be required on their own to make an effort by using their breaktime, etc. to catch up on their work. Students are also expected to think and act by themselves. Students will be required to acquire touch typing skills. All assignments must be submitted. 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	Computer basics (Hardware)	Can explain an overview of a computer hardware configuration.
		2nd	Computer basics (Hardware)	Can explain an overview of a computer hardware configuration.
		3rd	Computer basics (Software)	Can explain the roles and types of operating systems, and explain features of key OSs.
		4th	Computer basics (Software)	Can explain the types of application software.
		5th	Using the network	Can use the e-learning system, etc. at school. Understand how to use the Internet at school, and can act while keeping in mind the various rules in an information society.
		6th	Installation of Linux	Can explain how to start and shutdown of Linux operation system.
		7th	Configuration of Linux	Can make some personalization of Linux desktop environment.
		8th	Configuration of Linux	Can make some personalization of Linux desktop environment.
	2nd Quarter	9th	Introduction to Markdown	Can explain the concept and idea of Markdown.
		10th	Introduction to Markdown	Can explain Markdown key tags.
		11th	Introduction to Markdown	Can create simple documents using Markdown.
		12th	Introduction to Markdown	Can convert Markdown documents to various forms.
		13th	Formulas	Can explain commands to create mathematical formulas, which is a LaTeX function.
		14th	Formulas	Can create simple formulas using LaTeX functions.

		15th	Formulas	Can create complicated formulas using LaTeX functions.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Presentation	Touch Typing	Behavior	Portfolio	Other	Total
Subtotal	70	20	10	0	0	0	100
Basic Proficiency	70	20	10	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	Computer Literacy B

Course Information

Course Code	6131	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	We do not use a textbook. The teacher give a lecture using slides.		
Instructor	HAMADA Yukihiro		

Course Objectives

(1) Can operate data sorting and make graphs using a spreadsheet software.
(2) Can calculate basic statistics using a spreadsheet software.
(3) Can draw up a document including mathematical formulas using a typesetting system.
(4) Can draw up a document including figures, tables and graphs using a typesetting system.
(5) Can create slides using a presentation software.
(6) Can make a presentation using slides.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can perform data sorting and make graphs using a spreadsheet software adequately .	Can perform data sorting and make graphs using a spreadsheet software.	Cannot perform data sorting and make graphs using a spreadsheet software.
Achievement 2	Can calculate basic statistics using a spreadsheet software adequately.	Can calculate basic statistics using a spreadsheet software.	Cannot calculate basic statistics using a spreadsheet software.
Achievement 3	Can draw up a document including mathematical formulas using a typesetting system adequately.	Can draw up a document including mathematical formulas using a typesetting system.	Cannot draw up a document including mathematical formulas using a typesetting system.
Achievement 4	Can draw up a document including figures, tables and graphs using a typesetting system adequately.	Can draw up a document including figures, tables and graphs using a typesetting system.	Cannot draw up a document including figures, tables and graphs using a typesetting system.
Achievement 5	Can create slides using a presentation software adequately.	Can create slides using a presentation software.	Cannot create slides using a presentation software.
Achievement 6	Can make a presentation using slides adequately.	Can make a presentation using slides.	Cannot make a presentation using slides.

Assigned Department Objectives

Teaching Method

Outline	Students calculate basic statistics using Excel. Students draw up a document including mathematical formulas, figures, tables and graphs using LaTeX. Students create slides using PowerPoint and make a presentation using slides.
Style	Students listen to explanation and do practice alternately. Each student makes a presentation using slides.
Notice	Since it is hard to acquire a lot of techniques in only classes, students are expected to review them at home and to tackle given tasks. 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	Fundamentals of Excel	Can set the attribute of cells, perform continuous input, and set mathematical formulas and functions.
		2nd	Data processing using Excel	Can perform data sorting, make graphs, and give a regression line.
		3rd	Statistical processing using Excel	Can calculate the fundamental statistics of data and a correlation coefficient of two dimensional data.
		4th	Fundamentals of LaTeX	Can explain how to draw up a document using LaTeX and the basic structure of a LaTeX source file.
		5th	LaTeX: commands and environments	Can set right and center alignment, produce sections and subsections, perform itemization, and control horizontal and vertical spaces.
		6th	LaTeX: fonts and tables	Can specify font size and font type, and draw up tables.
		7th	LaTeX: mathematical formulas	Can write various mathematical formulas.
		8th	LaTeX: Importing diagrams	Can import diagrams into a LaTeX document.

	4th Quarter	9th	Presentaion and PowerPoint 1	Can tell a good presentation from a bad presentation, create slides, select the design of slides and its color scheme, and perform a slideshow.
		10th	PowerPoint 2	Can add and remove slides, specify font size and font type, and perform itemization.
		11th	PowerPoint 3	Can insert images and diagrams, specify the header and footer of slides, and set page switching.
		12th	Preparation of presentation	Think the structure of a talk and create slides using PowerPoint.
		13th	Presentation 1	Each student makes a presentation using slides.
		14th	Presentation 2	Each student makes a presentation using slides.
		15th	Presentation 3	Each student makes a presentation using slides.
		16th	No final exam	

Evaluation Method and Weight (%)

	Examination	Task	Presentation	Behavior	Portfolio	Other	Total
Subtotal	0	80	20	0	0	0	100
Basic Proficiency	0	80	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	Fundamental Experiments of Electrical & Computer Engineering

Course Information

Course Code	6132	Course Category	Specialized / Compulsory
Class Format	Experiment	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Distribute materials in class		
Instructor	KAJIMURA Yoshihiro,HIROTA Atsushi		

Course Objectives

1) Experientially understand the basics of electrical engineering through basic experiment exercises
2) Can research independently and actively matters related to conducted experiments
3) Learn to be cooperative and kind to others through collaborative work

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Fully and experientially understand the basics of electrical engineering through basic experiment exercises	Experientially understand the basics of electrical engineering through basic experiment exercises	Do not experientially understand the basics of electrical engineering through basic experiment exercises
Achievement 2	Can fully research independently and actively matters related to conducted experiments	Can research independently and actively matters related to conducted experiments	Cannot research independently and actively matters related to conducted experiments
Achievement 3	Fully learn to be cooperative and kind to others through collaborative work	Learn to be cooperative and kind to others through collaborative work	Fail to learn to be cooperative and kind to others through collaborative work

Assigned Department Objectives

Teaching Method

Outline	Students will experientially understand the basics of electrical engineering through basic experiment exercises, and learn the basic attitude for engineering experiments, including researching independently and actively matters related to conducted experiments . They will also learn to be cooperative, considerate to others, etc., through collaborative work. The instructors hold classes jointly.
Style	Lessons are done in the form of experiment exercises by teams. Quizzes will be conducted to test students' understanding.
Notice	Students are expected to work independently and actively, and learn the fundamentals and basics of experiments. They should attend classes in appropriate lab attire, and always behave with their own and others' safety in mind. All assignments are required to be submitted. Students are expected to develop the habit of properly fulfilling responsibilities, such as cleaning and putting away the equipment used. Students are required to bring a calculator (any model) and an A4 notebook for the experiments. It doesn't need to be a new notebook, but loose leaf paper is not allowed. 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 outline	Understand the outline of this course (objectives, goals, and notes)
		2nd	How to use a tester and measuring resistance and voltage	Learn how to use a tester and can measure resistance and voltage
		3rd	Breadboard 1	Learn the basic use of a breadboard
		4th	Breadboard 2	Can build a basic circuit using a breadboard
		5th	Oscilloscope 1	Learn the basic use of an oscilloscope
		6th	Oscilloscope 2	Learn the basic use of an oscilloscope and can measure circuits
		7th	Building electronics 1	Can build electronics using a soldering iron
		8th	Building electronics 2	Can build electronics using a soldering iron
	2nd Quarter	9th	Oscillator 1	Learn the basic use of an oscillator
		10th	Oscillator 2	Learn the basic use of an oscillator and can give high frequencies to a circuit
		11th	Making a blinking LED circuit 1	Understand the basic mechanism of a blinking LED circuit
		12th	Making a blinking LED circuit 2	Can make a basic circuit for a blinking LED circuit
		13th	Making a blinking LED circuit 3	Can make a blinking LED circuit
		14th	Amplified circuit using an operational amplifier	Can make a sine wave amplification circuit using an operational amplifier
		15th	Practice measuring voltage with a bridge circuit	Understand the equilibrium conditions of a bridge circuit
		16th	No final exam	

Evaluation Method and Weight (%)							
	Experiment efforts	Active learning	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	80	20	0	0	0	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	80	20	0	0	0	0	100
Cross Area Proficiency	0	0	0	0	0	0	0

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	Electrical and Computer 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) 論理的な文章（論説や評論）の構成や展開を理解し、要約することができる。
2) 文学的な文章（小説や韻文）を表現に即して読み取り、その表現の特質について自分の意見を述べることができる。
3) 日常的に用いられる漢字や語句を正しく理解し、活用することができる。

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	論理的な文章（論説や評論）の構成や展開を的確に理解し、要約した上で自分の意見を述べることができる。	論理的な文章（論説や評論）の構成や展開を遺漏なく理解し、要約することができる。	論理的な文章（論説や評論）の構成や展開についてキーワード等の補助がなければまとめることができない。
評価項目2	文学的な文章（小説や韻文）について、歴史的な背景や知識をもとに表現に即して読み取り、その表現の特質について自分の意見を述べることができる。	文学的な文章（小説や韻文）を表現に即して読み取り、その表現の特質について理解することができる。	文学的な文章（小説や韻文）を読み、おおまかな内容しか理解できない。
評価項目3	日常的に用いられる漢字や語句を正しく理解し、日常生活や研究の中で自由に活用することができる。	日常的に用いられる漢字や語句に関心を持ち、吸収しようと心がけることができる。	日常的に用いられる漢字や語句について、理解が十分でない。

Assigned Department Objectives

Teaching Method

Outline	小説や評論、古典文学など、様々な文章を読むことを通して、豊かな感性と論理的思考力を養い、的確な読解力と表現力を獲得する。
Style	講義形式を基本とする。随時、小テストや課題を課す。
Notice	事前学習によって問題点を明らかにした上で授業に臨み、意欲的に取り組むこと。 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
1st Semester	1st Quarter	1st	ガイダンス・「学びとは何か」の読解	授業の進行・準備物について理解することができる
		2nd	「学びとは何か」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		3rd	「学びとは何か」の読解	内容を理解した上で、自分の意見を述べることができる
		4th	「山月記」の読解	表現に即して内容を理解することができる
		5th	「山月記」の読解	小説の主人公について、典拠を踏まえて人物像を理解することができる
		6th	「山月記」の読解	表現・構成に注意して小説の展開を理解することができる
		7th	「山月記」の読解	表現・構成に注意して小説の展開を理解することができる
		8th	「山月記」の読解	小説の展開を整理し、全体的な主題を理解することができる
	2nd Quarter	9th	「古今著聞集」（小式部内侍が大江山の歌の事）の読解	適切に解釈し、教科書の設問に答えることができる
		10th	「方丈記」（ゆく川の流れ）の読解	文学史上の評価を理解し、文意をとらえることができる
		11th	「方丈記」（安元の大火）の読解	適切に解釈し、教科書の設問に答えることができる
		12th	「方丈記」（安元の大火）の読解	作品の主題と特徴を説明することができる
		13th	短歌・俳句の読解	作品背景・作家論を知り、作品を解釈することができる
		14th	短歌・俳句の読解	作品の主題と特徴を説明することができる
		15th	短歌・俳句の読解	作品ごとの特徴を意見として示すことができる
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	小テスト	態度	その他	Total
Subtotal	80	10	10	0	100
基礎的能力	80	10	10	0	100

専門的能力	0	0	0	0	0
分野横断的能力	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	Electrical and Computer 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)論理的な文章（論説や評論）の構成や展開を的確にとらえ、要約することができる。
2)文学的な文章（物語や日記）に描かれた人物やものの見方を表現に即して読み取り、自分の意見を述べることができる。
3)整理した情報をもとに、主張が効果的に伝わるように論理の構成や展開を工夫した報告を行ったり、文章を作成したりすることができる。

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	論理的な文章（論説や評論）の構成や展開を的確に理解し、要約した上で自分の意見を述べることができる。	論理的な文章（論説や評論）の構成や展開を遺漏なく理解し、要約することができる。	論理的な文章（論説や評論）の構成や展開についてキーワード等の補助がなければまとめることができない。
評価項目2	文学的な文章（物語や日記）について、歴史的な背景や知識をもとに表現に即して読み取り、その表現の特質について自分の意見を述べることができる。	文学的な文章（小説や日記）を表現に即して読み取り、その表現の特質について理解することができる。	文学的な文章（小説や日記）を読み、おおまかな内容しか理解できない。
評価項目3	明確な意見、結論を論理的、実証的文章として構成、展開することができる。	明確な意見とそれを表す段落構成を作成することができる。	結論、意見を設け、段落分けできるが論理性・実証性に乏しい。

Assigned Department Objectives

Teaching Method

Outline	小説や評論、古典文学など、様々な文章を読むことを通して、豊かな感性と論理的思考力を養い、的確な読解力と表現力を獲得する。
Style	講義形式を基本とする。随時、小テストや課題を課す。
Notice	事前学習によって問題点を明らかにした上で授業に臨み、意欲的に取り組むこと。 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	3rd Quarter	1st	授業ガイダンス、「なぜ科学を学ぶのか」の読解	テキストに用いられている語句・表現を適切に理解することができる
		2nd	「なぜ科学を学ぶのか」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		3rd	「なぜ科学を学ぶのか」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		4th	「なぜ科学を学ぶのか」の読解	内容を理解した上で、自分の意見を述べることができる
		5th	「若紫」（源氏物語）の読解	文学史上の評価を理解し、文意をとらえることができる
		6th	「若紫」（源氏物語）の読解	適切に解釈し、教科書の設問に答えることができる
		7th	「若紫」（源氏物語）の読解	作品の主題と特徴を説明することができる
		8th	「若紫」（源氏物語）の読解	主題を理解し、作品に対する自分の意見を述べることができる
	4th Quarter	9th	「源氏の五十余巻」（更級日記）の読解	適切に解釈し、教科書の設問に答えることができる
		10th	「源氏の五十余巻」（更級日記）の読解	作品の主題と特徴を説明することができる
		11th	故事・寓話の読解	適切に解釈し、教科書の設問に答えることができる
		12th	故事・寓話の読解	適切に解釈し、教科書の設問に答えることができる
		13th	「水墨画入門」の読解	テキストに用いられている語句・表現を適切に理解することができる
		14th	「水墨画入門」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		15th	「水墨画入門」の読解	内容を理解した上で、自分の意見を述べることができる
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	小テスト	態度	その他	Total
Subtotal	80	10	10	0	100
基礎的能力	80	10	10	0	100

専門的能力	0	0	0	0	0
分野横断的能力	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	Electrical and Computer 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) Ethnics 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 ethnics 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	Ethnics 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	Electrical and Computer 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	Electrical and Computer Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	4
Textbook and/or Teaching Materials	Differential AND Integral I		
Instructor	MATSUMIYA Atusi,		

Course Objectives

1. Understand limits of functions, the meaning of a derivative at a point, the definition of the derivative, the product and quotient rules for derivatives, composite functions, and inverse trigonometric functions, and can calculate the derivatives of various functions.
2. Can write a derivative sign chart for a function, find its extrema, and sketch its graph. Can use extrema to calculate functions' maximum and minimum values. Also, can investigate the shapes of graphs using second derivatives. Understand parametric representations of functions, and can use them to calculate their derivatives.
3. Understand the definition of definite integration and the fundament theorem of calculus, and can calculate simple definite integrals. Understand the definition of indefinite integration, and can calculate simple indefinite integrals. Also, can calculate indefinite and definite integrals using integration by substitution and integration by parts.
4. Can calculate indefinite and definite integrals of fractional, irrational, trigonometric, exponential, and logarithmic functions. Can use definite integration to calculate the areas of shapes enclosed by curves, the lengths of curves, and the volumes of solids in simple cases.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Fully understand limits of functions, the meaning of a derivative at a point, the definition of the derivative, the product and quotient rules for derivatives, composite functions, and inverse trigonometric functions, and can fully calculate the derivatives of various functions.	Understand limits of functions, the meaning of a derivative at a point, the definition of the derivative, the product and quotient rules for derivatives, composite functions, and inverse trigonometric functions, and can calculate the derivatives of various functions.	Do not understand the limits of functions, the meaning of a derivative at a point, the definition of the derivative, the product and quotient rules for derivatives, composite functions, and inverse trigonometric functions, and cannot calculate the derivatives of various functions.
Achievement 2	Can write a derivative sign chart for a function, find its extrema, and sketch its graph. Can fully use extrema to calculate the function's maximum and minimum values. Also, can fully investigate the shapes of graphs using second derivatives. Fully understand parametric representations of functions, and can fully use them to calculate their derivatives.	Can write a derivative sign chart for a function, find its extrema, and sketch its graph. Can use extrema to calculate functions' maximum and minimum values. Also, can investigate the shapes of graphs using second derivatives. Understand parametric representations of functions, and can use them to calculate their derivatives.	Cannot write a derivative sign chart for a function, find its extrema, and sketch its graph. Cannot use extrema to calculate the function's maximum and minimum values. Also, cannot investigate the shapes of graphs using second derivatives. Do not understand parametric representations of functions, and cannot use them to calculate their derivatives.
Achievement 3	Fully understand the definition of definite integration and the fundament theorem of calculus, and can fully calculate simple definite integrals. Fully understand the definition of an indefinite integral, and can fully calculate simple indefinite integrals. Also, can fully calculate indefinite and definite integrals using integration by substitution and integration by parts.	Understand the definition of definite integration and the fundament theorem of calculus, and can calculate simple definite integrals. Understand the definition of indefinite integration, and can calculate simple indefinite integrals. Also, can calculate indefinite and definite integrals using integration by substitution and integration by parts.	Do not understand the definition of definite integrals and the fundament theorem of calculus, and cannot calculate simple definite integrals. Do not understand the definition of indefinite integrals, and cannot calculate simple indefinite integrals. Also, cannot calculate indefinite and definite integrals using integration by substitution and integration by parts.
	Can fully calculate indefinite and definite integrals of fractional, irrational, trigonometric, exponential, and logarithmic functions. Can fully use definite integration to calculate the areas of shapes enclosed by curve, the lengths of curves, and the volumes of solids in simple cases.	Can calculate indefinite and definite integrals of fractional, irrational, trigonometric, exponential, and logarithmic functions. Can use definite integration to calculate the areas of shapes enclosed by curves, the lengths of curves, and the volumes of solids in simple cases.	Cannot calculate indefinite and definite integrals of fractional, irrational, trigonometric, exponential, and logarithmic functions. Cannot use definite integration to calculate the areas of shapes enclosed by curves, the lengths of curves, and the volumes of solids in simple cases.

Assigned Department Objectives

Teaching Method

Outline	Students will learn the basic concepts of differentiation and integration and various computational methods developed from them, and acquire the necessary skills for analyzing various events when applying them in specialized fields.
Style	Classes will assume the pre-study has been done, and follow the textbook accordingly. There will also be problem exercises. Students will be asked questions to check their understanding during classes. In the classes, focus on understanding, and ask questions about things do not understand in the pre-study or class, rather than doing nothing about them. Make an effort to always review the material on the same day, and solve the problems in the textbook and the workbook. Some of the classes will use ICT. Tests will sometimes be held without prior notice to confirm attainment. Consequently, please study properly on a daily basis.

Notice	The overall evaluation will be based 50% on exams, 20% on submitted assignments, etc., and 30% on presentations and general effort toward classes. The minimum score for a pass will be 60 marks. However, evaluation scores based on these weightings will be calculated at the end of the school year. The cumulative evaluation up to the second semester midterm be based on interim weightings rather than the ones given above. Students who do well in assignments, presentations, etc. may get them evaluated with a higher weighting. CBT will be conducted in any week. 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	Limits and derivatives of functions	Can find graphs and formulas for functions.
		2nd	Limits and derivatives of functions	Can calculate the limits of functions in simple cases.
		3rd	Limits and derivatives of functions	Understand the meaning of a derivative at a point and the definition of the derivative, and can calculate derivatives.
		4th	Limits and derivatives of functions	Can calculate derivatives using the product and quotient rules for derivatives. Can calculate the derivatives of composite functions.
		5th	Limits and derivatives of functions	Can calculate the derivatives of trigonometric and exponential functions.
		6th	Derivatives of various functions	Understand the derivatives of inverse functions, and can calculate the derivatives of logarithmic and inverse trigonometric functions.
		7th	Derivatives of various functions	Understand the continuous of function, and can solve applied problems accordingly.
		8th	Derivatives of various functions	Understand the intermediate value theorem, and can solve applied problems accordingly.
	2nd Quarter	9th	Variation of functions	Can calculate the equations of tangents and normals to functions in simple cases.
		10th	Variation of functions	Can write a derivative sign chart for a function, find its extrema, and sketch its graph.
		11th	Variation of functions	Can use extrema to calculate functions' maximum and minimum values.
		12th	Various applications	Can calculate higher-order derivatives. Can investigate the shapes of graphs using second derivatives.
		13th	Various applications	Understand parametric representations of functions, and can use them to calculate their derivatives.
		14th	Various applications	Understand speed and acceleration, and can solve applied problems accordingly.
		15th	Various applications	Understand and can use the mean value theorem and L'Hôpital's rule.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Task	Presentation・Status of efforts	Total
Subtotal	50	20	30	100
Basic Proficiency	50	20	30	100
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	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	Electrical and Computer 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
2nd Semester	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出来る。

		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 (%)

	試験	課題等	発表および平素の授業への取り組み	Total
Subtotal	50	20	30	100
基礎的能力	50	15	30	95
専門的能力	0	0	0	0
分野横断的能力	0	5	0	5

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	Electrical and Computer Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	高遠　節夫　他　著　「新線形代数　改訂版」　大日本図書 高遠　節夫　他　著　「新線形代数　問題集　改訂版」　大日本図書		
Instructor	TAKATA Isao		

Course Objectives

1．ベクトルの計算および図形への応用ができる。
2．行列の定義および 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	ベクトルの計算及び図形への応用が十分にできる。	ベクトルの計算及び図形への応用ができる。	ベクトルの計算及び図形への応用ができない。
評価項目 2	行列の定義および 計算が十分にできる。	行列の定義および 計算ができる。	行列の定義および 計算ができない。

Assigned Department Objectives

Teaching Method

Outline	幅広い分野で使われている線形代数学の基礎について講義・演習を行う．目標は平面上や空間内での図形の方程式を用いて，計算と幾何を関連付けできるようになることである
Style	シラバスに沿って、動画を使って予習してきてもらう。授業中はグループ学習をしてもらい、理解度を確認する。
Notice	予習復習をきちんとすること。分からないことは放置せず質問すること。問題集などを利用して自主的に勉強して欲しい。 ＣＢＴテストをすることもある。 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
1st Semester	1st Quarter	1st	平面ベクトル	ベクトルの演算の基本法則を使って計算ができる。
		2nd	平面ベクトル	ベクトルの内積を計算できる。
		3rd	平面ベクトル	平面ベクトルの成分表示を使って計算をすることができる。
		4th	空間のベクトル	空間ベクトルの成分表示を使って計算をすることができる。
		5th	空間のベクトル	平行四辺形の面積をベクトルで計算できる。
		6th	空間のベクトル	平行条件・垂直条件を理解し、計算に使うことができる。
		7th	空間のベクトル	空間の中の直線の方程式を求めることができる。
		8th	空間のベクトル	空間の中の平面の方程式を求めることができる。
	2nd Quarter	9th	空間ベクトル	ベクトルの外積を求め、使うことができる。
		10th	空間ベクトル	点と平面との距離を求めることができる。
		11th	空間ベクトル	球面の方程式を求めることができる。
		12th	行列	行列の和・差・積の計算ができる。
		13th	行列	行列の分配法則・結合法則を使うことができる。
		14th	CBTテスト	CBTテストを行い、学習の定着度を確認する。
		15th	総括	いままでの学習の総復習をする。
		16th	期末試験	いままでの学習の確認をする。

Evaluation Method and Weight (%)

	定期試験	CBTテスト	復習テスト	課題等の提出物	出席点	Total
Subtotal	25	20	25	15	15	100
基礎的能力	25	20	25	15	15	100
専門的能力	0	0	0	0	0	0
分野横断的能力	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	Electrical and Computer Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	高遠　節夫　他　著　「新線形代数　改訂版」　大日本図書 高遠　節夫　他　著　「新線形代数　問題集　改訂版」　大日本図書		
Instructor	TAKATA Isao		

Course Objectives

１．行列の 計算ができ、連立1次方程式を解くことができる。
２．行列式の定義および性質を理解し、基本的な行列式の値を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	行列の計算ができ、連立1次方程式を解くことが十分にできる。	行列の計算ができ、連立1次方程式を解くことができる。	行列の計算ができ、連立1次方程式を解くことができない。
評価項目2	行列式の定義および性質を理解し、基本的な行列式の値を十分に求められる。	行列式の定義および性質を理解し、基本的な行列式の値を求められる。	行列式の定義および性質を理解し、基本的な行列式の値を求められない。

Assigned Department Objectives

Teaching Method

Outline	幅広い分野で使われている線形代数学の基礎について講義・演習を行う．目標は平面上や空間内での図形の方程式を用いて，計算と幾何を関連付けできるようになることである。
Style	シラバスに沿って、動画を使って予習してきてもらう。授業中はグループ学習をしてもらい、理解度を確認する。
Notice	予習復習をきちんとすること。分からないことは放置せず質問すること。問題集などを利用して自主的に勉強して欲しい。 ＣＢＴテストをすることもある。 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	3rd Quarter	1st	行列	零行列・単位行列を理解し、使うことができる。
		2nd	行列	転置行列と逆行列を求め、使うことができる。
		3rd	行列式の定義と性質	２次の行列式を計算し、クラメルの公式を使うことができる。
		4th	行列式の定義と性質	行列式の定義を理解し、簡単な行列式を計算できる。
		5th	行列式の定義と性質	行列式の性質を理解し、計算に使うことができる。
		6th	行列式の応用	行列式の展開をすることができる。
		7th	行列式の応用	いろいろな行列式の計算をすることができる。
		8th	行列式の応用	余因子を使って逆行列を求めることができる。
	4th Quarter	9th	行列式の応用	行列式を使って因数分解をすることができる。
		10th	連立１次方程式と行列	行列の消去法を理解し、使うことができる。
		11th	連立１次方程式と行列	消去法を使って、連立１次方程式を解くことができる。
		12th	連立１次方程式と行列	消去法を使って、逆行列を求めることができる。
		13th	連立１次方程式と行列	行列の階数を求めることができる。
		14th	ＣＢＴテスト	ＣＢＴテストで定着度の確認をする。
		15th	総括	総復習をする。
		16th	期末試験	これまでの学習の確認をする。

Evaluation Method and Weight (%)

	定期試験	CBTテスト	復習テスト	課題等の提出物	出席点	Total
Subtotal	25	20	25	15	15	100
基礎的能力	25	20	25	15	15	100
専門的能力	0	0	0	0	0	0
分野横断的能力	0	0	0	0	0	0

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	Electrical and Computer 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 evergy 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	Electrical and Computer 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	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	Electrical and Computer 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	Electrical and Computer 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	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・塩基の反応ー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
専門的能力	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	Electrical and Computer 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	Electrical and Computer 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	Electrical and Computer 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	Electrical and Computer Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	New Rays English Communication II 教科書／学習ノート／WORKBOOK		
Instructor	INOUE Hidetoshi		

Course Objectives

1）中学で既習の語彙の定着を図り、高等学校学習指導要領に準じた新出語彙を習得して適切に運用できる。
2）中学で既習の文法に加え、高等学校学習指導要領に準じた文法を習得して適切に運用できる。
3）中学で既習の文構造に加え、高等学校学習指導要領に準じた文構造を習得して適切に運用できる。
4）平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができる。
5）明瞭で聞き手に伝わるような発話ができるよう、英語の発音・アクセントの規則を習得して適切に運用できる。

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	高等学校学習指導要領に準じた新出語彙を十分に習得して適切に運用できる。	高等学校学習指導要領に準じた新出語彙を習得して運用できる。	高等学校学習指導要領に準じた新出語彙を習得していない。
評価項目2	高等学校学習指導要領に準じた文法や文構造を十分に習得して適切に運用できる。	高等学校学習指導要領に準じた文法や文構造を習得して運用できる。	高等学校学習指導要領に準じた文法や文構造を習得していない。
評価項目3	高等学校学習指導要領に準じた文構造を十分に習得して適切に運用できる。	高等学校学習指導要領に準じた文構造を習得して適切に運用できる。	高等学校学習指導要領に準じた文構造を習得していない。
評価項目4	平易な英語で書かれた文章を読み、その概要を十分に把握し必要な情報を読み取ることができる。	平易な英語で書かれた文章を読み、その概要を把握し必要な情報を読み取ることができる。	平易な英語で書かれた文章を読み、その概要を把握できない。
評価項目5	英語の発音・アクセントの規則を十分に習得して適切に運用できる。	英語の発音・アクセントの規則を習得して適切に運用できる。	英語の発音・アクセントの規則を習得していない。

Assigned Department Objectives

Teaching Method

Outline	中学校既習事項をもとに英文の基本構造を理解し、読解力を身につける。 簡単な英文を聞き取り、表現する力を身につける。 単語テストを適宜行い、語彙力強化を図る。
Style	毎回、教科書、学習ノートの該当箇所を予習した上で授業に出席すること。 授業終了後はワークブックで学習事項の定着を図ること。 小テスト（語彙）、ノート提出がある。
Notice	遅刻や欠席による小テストの未受験は0点の扱いとする。 評価の対象としない欠席条件(割合) 1/4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	3rd Quarter	1st	授業ガイダンス （授業の進行方法、学習方法など）	弱点の克服を目指す。
		2nd	Lesson 6 Part 1/2	レッスンの課題として設定されている語彙・文法などを習得する。
		3rd	Lesson 6 Part 2/3	レッスンの課題として設定されている語彙・文法などを習得する。
		4th	Lesson 6 Part 3/4	レッスンの課題として設定されている語彙・文法などを習得する。
		5th	課末問題	レッスンの課題として設定されている語彙・文法などを習得する。
		6th	Lesson 7 Part 1/2	レッスンの課題として設定されている語彙・文法などを習得する。
		7th	Lesson 7 Part 2/3	これまでの学習内容について弱点を把握し中間試験に備える。
		8th	中間試験	これまでの学習内容の理解力を試す。
	4th Quarter	9th	中間試験返却および解説 Lesson 7 Part 3	弱点の克服を目指す。
		10th	Lesson 7 Part 4 課末問題	レッスンの課題として設定されている語彙・文法などを習得する。
		11th	Lesson 8 Part 1/2	レッスンの課題として設定されている語彙・文法などを習得する。
		12th	Lesson 8 Part 2/3	レッスンの課題として設定されている語彙・文法などを習得する。
		13th	Lesson 8 Part 3/4	レッスンの課題として設定されている語彙・文法などを習得する。

		14th	課末問題	レッスンの課題として設定されている語彙・文法などを習得する。
		15th	Lesson 9 Part 1/2	これまでの学習内容について弱点を把握し期末試験に備える。
		16th	期末試験	これまでの学習内容の理解力を試す。

Evaluation Method and Weight (%)

	定期試験	課題提出	小テスト	その他	Total
Subtotal	50	30	20	0	100
基礎的能力	50	30	20	0	100
専門的能力	0	0	0	0	0
分野横断的能力	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	Electrical and Computer 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	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 (%)

	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	Electrical and Computer Engineering	Student Grade	2nd
Term	Second 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
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	Ｃｏ＋ｗｏｒｋＩＡ

Course Information

Course Code	6219	Course Category	General / Compulsory
Class Format	Seminar	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	『Co+work book～３年間の記録』、Co+work学生ポータルサイト、その他、各チームの活動の内容に応じて適宜担当教員が用意する。		
Instructor	All faculty		

Course Objectives

自律に関する到達目標：自己調整ができる。
協働に関する到達目標：他者を尊重しながらチームで作業ができる。
創造に関する到達目標：課題等を発見し新しい提案ができる。

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
自律に関する到達目標	タイムマネジメントや必要に応じた報告・連絡・相談ができ、目標を立て振り返ることができる。これらを自分なりの判断と工夫を加え最善と思う行動をとる。	タイムマネジメントや必要に応じた報告・連絡・相談ができ、目標を立て振り返ることができる。これらのことをやるべき時に行う。	タイムマネジメントや必要に応じた報告・連絡・相談、目標を立て振り返ることの行動が伴わない。
協働に関する到達目標	他者の意見をしっかりと聞き、他者を受け入れつつ自己表現ができる。また、協働作業に貢献することができる。これらを自分なりの判断と工夫を加え最善と思う行動をとる。	他者の意見をしっかりと聞き、他者を受け入れつつ自己表現ができる。また、協働作業に貢献することができる。これらのことをやるべき時に行う。	他者の意見をしっかりと聞くこと、他者を受け入れつつ自己表現を行う行動が伴わない。また、協働作業に貢献する行動が伴わない。
創造に関する到達目標	記録や収集した情報の意味づけを踏まえ、新しいものやしくみの提案をすることができる。また提案の及ぼす影響や範囲を特定できる。そして、これらを自分なりの判断と工夫を加え最善と思う行動をとる。	新しいものやしくみの提案をすることができる。また提案の及ぼす影響や範囲を特定できる。また、これらのことをやるべき時に行う。	記録や収集した情報の意味づけを踏まえ、新しくものやしくみの提案をすることができない。また提案の及ぼす影響や範囲を特定できない。また、新しい提案をする行動が伴わない。

Assigned Department Objectives

Teaching Method

Outline	本授業は、２、３、４年生、４学科の学生を無作為に選んで構成された数名で編成されたチームで行うPBL型授業である。1人の教員が１チームもしくは２チームを担当する。多様な環境（他学科・他学年の学生との交わり、学外の人々との交わりなど）の中で、自律、協働、創造の能力を養成することを目的とする。受講生は、自らチーム内での役割を考えて行動しチームワーク力を発揮して、メンバーと協働しながら創造的な活動を行うことが求められる。活動テーマは、誰かを幸せにするもの（社会との関わりを持つ）、チームにとってのチャレンジを含むもの、SDGs（持続可能な開発目標）の17の目標につながるものとする。
Style	ルーブリックを参照しながら、各自で自己目標を立てる。そしてチーム内で自己紹介、アイスブレイクを通じてチーム内の人間関係を構築する。次にチームで、SDGs（持続可能な開発目標）の17の目標の目標の細分化項目の調査や把握を通じて、その理解を深める。それから話し合いを通じて、SDGsの目標につながるチームの活動テーマを確定し、活動計画書を作成する。第7週の計画発表会・意見交換会にてチームの活動テーマについて、プレゼンテーションを行い、他のチームの担当教員や学生からの助言を受ける。助言を受け、適宜チームで計画の修正を行う。その後はチームで協力、役割分担をしながら計画的に、提案やプロトタイプの作成、実践活動などを進める。毎週、授業の終わりにチームでふりかえりを行いチーム活動報告書を記入し担当教員に提出する。必要に応じて修正を加えながら次回の目標を立てる。前期終了時には、担当教員と個別に自己評価や相互評価を踏まえたふりかえりを行う。
Notice	（１）個人の取り組み 60%（自律（40%）＋協働（40%）＋創造（20%）） （２）チームの取り組み20%（協働（50%）＋創造（50%）） （３）成果 20%（協働（50%）＋創造（50%）） 上記 （１）は、ルーブリックを用いた学生の自己評価、相互評価と教員の評価をもとに、チームの担当教員が評価を行う。（２）（３）は計画発表会での複数の教員などによる評価とする。60点以上を合格とする。 評価の対象としない欠席条件(割合) 1/4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	オリエンテーション 授業ガイダンス、チームビルディング 授業ガイダンスを受け、全体スケジュール、活動に関する諸注意、評価方法等を確認する。担当教員とチームメンバーの顔合わせ、チームビルディングを行う。	この授業の目的や進め方を理解する
		2nd	活動目標の決定および活動内容の計画、自己目標を各自で定めて記録する。チーム活動に向け、テーマに沿ってアイデアを出し議論をする。 決定した活動目標に沿って、実施方法、役割分担、スケジュール等を決定し活動計画書にまとめる。	自律、協働、創造の能力を身に付ける
		3rd	活動目標の決定および活動内容の計画 チーム活動の目標決定に向け、テーマに沿ってアイデアを出し議論をする。決定した活動目標に沿って、方法、役割分担、スケジュール等を決定し活動計画書にまとめる。完成後は活動を開始する。	自律、協働、創造の能力を身に付ける

		4th	活動目標の決定および活動内容の計画 チーム活動の目標決定に向け、テーマに沿ってアイデアを出し議論をする。決定した活動目標に沿って、方法、役割分担、スケジュール等を決定し活動計画書にまとめる。完成後は活動を開始する。	自律、協働、創造の能力を身に付ける
		5th	活動目標の決定および活動内容の計画 チーム活動の目標決定に向け、テーマに沿ってアイデアを出し議論をする。決定した活動目標に沿って、方法、役割分担、スケジュール等を決定し活動計画書にまとめる。活動計画書を提出する。	自律、協働、創造の能力を身に付ける
		6th	チーム活動 活動計画書に従ってチームで活動を行う。計画発表会＆意見交換会の準備を行う。	自律、協働、創造の能力を身に付ける
		7th	計画発表会＆意見交換会 活動内容を共有するためにチームの活動について報告を行う。他のチームの報告を聞き、意見交換を行う。	チームの活動を簡潔に伝えることができる 他のチームの活動を共有し評価し、意見を伝えることができる
		8th	計画の見直し・チーム活動 計画発表会＆意見交換会を踏まえ、計画の見直しを行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。	自律、協働、創造の能力を身に付ける
	2nd Quarter	9th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。	自律、協働、創造の能力を身に付ける
		10th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。中間報告会の準備を行う。	自律、協働、創造の能力を身に付ける
		11th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。中間報告会の準備を行う。	自律、協働、創造の能力を身に付ける
		12th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。中間報告会の準備を行う。	自律、協働、創造の能力を身に付ける
		13th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。	自律、協働、創造の能力を身に付ける
		14th	これまでの活動のふりかえり 前期の振り返りを行うと共にこれまでのチーム活動を省み、今後の活動計画を確認する。各自の行動を省みて、自律、協働、創造に関して目標達成した点や反省点を自己および相互に記録する。自己および相互の行動の記録をもとにチーム担当教員より個別にフィードバックを受ける。	チームや自身の行動を客観的にふりかえることができる
		15th	これまでの活動のふりかえり 前期の振り返りを行うと共にこれまでのチーム活動を省み、今後の活動計画を確認する。各自の行動を省みて、自律、協働、創造に関して目標達成した点や反省点を自己および相互に記録する。自己および相互の行動の記録をもとにチーム担当教員より個別にフィードバックを受ける。	チームや自身の行動を客観的にふりかえることができる
		16th	期末試験　実施せず	

Evaluation Method and Weight (%)

	個人評価（プロセス評価）（自律）	個人評価（プロセス評価）（協働）	個人評価（プロセス評価）（創造）	チーム評価（成果物、報告会）（協働）	チーム評価（成果物、報告会）（創造）	Total
Subtotal	24	24	12	20	20	100
基礎的能力	0	0	0	0	0	0
専門的能力	0	0	0	0	0	0
分野横断的能力	24	24	12	20	20	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	Electrical and Computer 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 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	Electrical and Computer 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	Electrical and Computer 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	Electric Circuits Ⅱ A

Course Information

Course Code	6226	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	KAJIMURA Yoshihiro		

Course Objectives

Evaluation point 1: Understand and can explain the relationship between voltage and current in resistance, coils, and capacitor elements, and can use it in the calculation of an electrical circuit.
Evaluation point 2: Understand and can explain the instantaneous values, phaser, and complex number expressions, and can use them in the calculation of a sine wave AC circuit.
Evaluation point 3: Can explain the principle and method of measuring effective power, reactive power, and power factor, and calculate them.
Evaluation point 4: Can explain how mutual inductance circuits work, and calculate circuit voltages, currents, etc.
Evaluation point 5: Can explain and calculate voltages and currents (phase voltage, line voltage, line current) in three-phase AC.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand the relationship between voltage and current in resistance, coils, and capacitor elements, and can use it in the applied calculation of an electrical circuit.	Understand the relationship between voltage and current in resistance, coils, and capacitor elements, and can use it in the calculation of an electrical circuit.	Do not understand the relationship between voltage and current in resistance, coils, and capacitor elements, and cannot use it in the calculation of an electrical circuit.
Achievement 2	Understand and can explain the instantaneous values, phaser, and complex number expressions, and can use them in the applied calculation of a sine wave AC circuit.	Understand and can explain the instantaneous values, phaser, and complex number expressions, and can use them in the calculation of a sine wave AC circuit.	Do not understand and cannot explain the instantaneous values, phaser, and complex number expressions, and cannot use them in the calculation of a sine wave AC circuit.
Achievement 3	Can explain the principle and method of measuring effective power, reactive power, and power factor, and solve problems.	Can explain the principle and method of measuring effective power, reactive power, and power factor.	Cannot explain the principle and method of measuring effective power, reactive power, and power factor.
	Can perform applied calculations of voltages, currents, etc. in mutual inductance circuits, etc.	Can calculate voltages, currents, etc. in mutual inductance circuits, etc.	Cannot calculate voltages, currents, etc. in mutual inductance circuits, etc.
	Can perform applied calculations of voltages and currents (phase voltage, line voltage, line current) in three-phase AC.	Can calculate voltages and currents (phase voltage, line voltage, line current) in three-phase AC.	Cannot calculate voltages and currents (phase voltage, line voltage, line current) in three-phase AC.

Assigned Department Objectives

Teaching Method

Outline	The goals of this course are to be able to explain the meaning and application of physical quantities such as voltage, current, and impedance in the AC circuit theory, which is the basis of electrical and electronic engineering, and be able to calculate them. The class also involves practice problem exercises, etc. to help students learn them.
Style	Explanations will be given in line with the textbook. The class will be carried out using slides and worksheets. There will regularly be report assignments of problem exercises.
Notice	This course's content will amount to 180 hours of study in total. These hours include learning time guaranteed in classes and the standard self-study time required for pre-study / review, and completing assignment reports. The overall evaluation will be based 80% on periodic exams, and 20% on report assignments including worksheets done during class. The reports will be mostly made up of the questions at the end of each chapter. The minimum score for a pass will be 60%. 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	Electrical mathematics exercise I	Can calculate derivative and complex numbers.
		2nd	Electrical mathematics exercise II	Can calculate integrals.
		3rd	Sine wave AC, mean values	Understand sine wave AC and calculate mean values.
		4th	RMS values	Can calculate RMS values.
		5th	Resistive circuits	Can find the current in a resistive circuit.
		6th	Inductance circuit	Can find the current in a inductance circuit.
		7th	Capacitor circuits	Can find the current in a capacitor circuit.

		8th	Midterm exam	
	2nd Quarter	9th	R-L circuits	Can find the current in a R-L circuit.
		10th	R-C circuits	Can find the current in a R-C circuit.
		11th	The basics of R-L-C circuit vector notation	Can find the current in a R-L-C circuit.
		12th	The basis of the vector notation I	Understand the meaning of the vector notation and express AC voltage with symbols.
		13th	Basics of the vector notation II	Can calculate an AC circuit using the vector notation.
		14th	Impedance and admittance I	Can calculate impedance and admittance.
		15th	Impedance and admittance II	Can calculate impedance and admittance of a complex circuit.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Report	Portfolio	Other	Total
Subtotal	80	0	0	20	0	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	80	0	0	20	0	0	100
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Electric Circuits Ⅱ B

Course Information

Course Code	6227	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	KAJIMURA Yoshihiro		

Course Objectives

Evaluation point 1: Understand and can explain the relationship between voltage and current in resistance, coils, and capacitor elements, and can use it in the calculation of an electrical circuit.
Evaluation point 2: Understand and can explain the instantaneous values, phaser, and complex number expressions, and can use them in the calculation of a sine wave AC circuit.
Evaluation point 3: Can explain the principle and method of measuring effective power, reactive power, and power factor, and calculate them.
Evaluation point 4: Can explain how mutual inductance circuits work, and calculate circuit voltages, currents, etc.
Evaluation point 5: Can explain and calculate voltages and currents (phase voltage, line voltage, line current) in three-phase AC.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand the relationship between voltage and current in resistance, coils, and capacitor elements, and can use it in the applied calculation of an electrical circuit.	Understand the relationship between voltage and current in resistance, coils, and capacitor elements, and can use it in the calculation of an electrical circuit.	Do not understand the relationship between voltage and current in resistance, coils, and capacitor elements, and cannot use it in the calculation of an electrical circuit.
Achievement 2	Understand and can explain the instantaneous values, phaser, and complex number expressions, and can use them in the applied calculation of a sine wave AC circuit.	Understand and can explain the instantaneous values, phaser, and complex number expressions, and can use them in the calculation of a sine wave AC circuit.	Do not understand and cannot explain the instantaneous values, phaser, and complex number expressions, and cannot use them in the calculation of a sine wave AC circuit.
Achievement 3	Can explain the principle and method of measuring effective power, reactive power, and power factor, and solve problems.	Can explain the principle and method of measuring effective power, reactive power, and power factor.	Cannot explain the principle and method of measuring effective power, reactive power, and power factor.
	Can perform applied calculations of voltages, currents, etc. in mutual inductance circuits, etc.	Can calculate voltages, currents, etc. in mutual inductance circuits, etc.	Cannot calculate voltages, currents, etc. in mutual inductance circuits, etc.
	Can perform applied calculations of voltages and currents (phase voltage, line voltage, line current) in three-phase AC.	Can calculate voltages and currents (phase voltage, line voltage, line current) in three-phase AC.	Cannot calculate voltages and currents (phase voltage, line voltage, line current) in three-phase AC.

Assigned Department Objectives

Teaching Method

Outline	The goals of this course are to be able to explain the meaning and application of physical quantities such as voltage, current, and impedance in the AC circuit theory, which is the basis of electrical and electronic engineering, and be able to calculate them. The class also involves practice problem exercises, etc. to help students learn them.
Style	Explanations will be given in line with the textbook. The class will be carried out using slides and worksheets. There will regularly be report assignments of problem exercises.
Notice	This course's content will amount to 180 hours of study in total. These hours include learning time guaranteed in classes and the standard self-study time required for pre-study / review, and completing assignment reports. The overall evaluation will be based 80% on periodic exams, and 20% on report assignments including worksheets done during class. The reports will be mostly made up of the questions at the end of each chapter. The minimum score for a pass will be 60%. 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	Complex power	Can calculate complex power.
		2nd	Vector diagrams	Can draw a vector diagram.
		3rd	Bridge circuits	Understand bridge circuits and can find equilibrium conditions.
		4th	Mutual inductance circuits	Can write the meaning of mutual inductance circuits, and draw an equivalent circuit.
		5th	Equivalent circuits of mutual inductance circuits I	Can calculate the current in an equivalent circuit of a mutual inductance circuit.

		6th	Equivalent circuits of mutual inductance circuits II	Can calculate the current in an equivalent circuit of a mutual inductance circuit.
		7th	Occurrence of polyphase AC and Star and Delta connections	Can explain the occurrence of polyphase AC, and Star and Delta connections.
		8th	Midterm exam	
	4th Quarter	9th	Symbol notion and phase rotation of polyphase AC	Can calculate the voltage and current in a polyphase AC.
		10th	Phase voltage and line voltage of a Y connection	Can calculate the phase voltage and the line voltage of a Y connection.
		11th	Phase current and line current of a Δ connection	Can calculate the phase current and line current of a Δ connection.
		12th	Δ and Y connections and Δ-Y conversions	Can calculate Δ and Y connections and Δ-Y conversions.
		13th	Polyphase AC electrical power	Can calculate polyphase AC electrical power.
		14th	Non-sine waves and the basis of the Fourier series	Can describe the meaning of non-sine waves and the Fourier series.
		15th	How to compute Fourier coefficients, and Fourier series expansion of an odd function wave	Can compute Fourier coefficients, and perform Fourier series expansion of an odd function wave.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Report	Portfolio	Other	Total
Subtotal	80	0	0	20	0	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	80	0	0	20	0	0	100
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Computer Programming Ⅱ A

Course Information

Course Code	6228	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	TSUCHIDA Takayuki		

Course Objectives

[1] Understand basic syntax including operators in C, data type, and function, and structures, pointers, and the relationship between pointers and arrays, and can write programs.
[2] Understand the concept of a library and write programs that utilize libraries.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand the basic syntax of C language and can write advanced programs that utilize structures and pointers.	Understand the basic syntax of C language and can write basic programs that utilize structures and pointers.	Cannot understand the basic syntax of C language and cannot write basic programs that utilize structures and pointers.
Achievement 2	Can explain the concept of a library and can write advanced programs that utilize many libraries.	Can explain the concept of a library and can write basic programs that utilize libraries.	Cannot explain the concept of a library and cannot write programs that utilize library.

Assigned Department Objectives

Teaching Method

Outline	Following the Programming I, the course involves lectures and exercises of programming in C. In the last half of the course, students also learn about the existing libraries used in program development and how to use them. The lectures will be conducted by a teacher who engaged in the research and development of middleware (database) at Hitachi, Ltd. Research & Development Headquarters for five years.
Style	In the first half of the course, students will understand the content of the textbook and practice applied questions individually to enhance their program development skills. In this period, it is recommended that students give a lot of thought on how to solve problems on paper and make a habit of managing their history in order to know when program planning and description changes occur. In the last half of the course, libraries, which are necessary for writing more practical programs, will be explained.
Notice	Students must have completed Programming I. This course's content will amount to 90 hours of study in total. These hours include the learning time guaranteed in classes and the standard self-study time required for pre-study / review, and completing assignment reports. All assignments are required to be submitted. 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	Guidance, test	Understand the class objectives. Can review, understand, and explain the basic syntax.
		2nd	Concept and basics of functions	Understand the concept and basics of functions and can write programs.
		3rd	Function definition and calls	Understand function definitions and calls, and can write programs.
		4th	Function designs	Understand various function designs and can write programs.
		5th	Exercise (1)	Can independently create programs in exercise questions that use function .
		6th	Basic type (1)	Understand the basic types and can write programs.
		7th	Basic types (2)	Can independently create programs in exercise questions that use basic types .
		8th	Midterm exercise	Understand the content of Weeks 1-7, and can write programs.
	2nd Quarter	9th	Function-like macros	Understand function-like macros and can write programs.
		10th	Enumerations	Understand enumerations and can write programs.
		11th	Text I/O	Understand the text I/O and can write programs.
		12th	Strings (1)	Understand the basics of strings and can write programs.
		13th	Strings (2)	Understand the arrays and operations of strings and can write programs.
		14th	Strings (3)	Understand the operations of strings and can write programs.

		15th	Exercise (2)	Can independently create programs in exercise questions that use strings.
		16th	Final exam	Understand the content of Weeks 8-15 and can write programs.

Evaluation Method and Weight (%)

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

Akashi College	Year	2024	Course Title	Computer Programming Ⅱ B

Course Information

Course Code	6229	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	HIRANO Masatsugu		

Course Objectives

[1] Understand basic syntax including operators in C, data type, and function, and structures, pointers, and the relationship between pointers and arrays, and can write programs.
[2] Understand the concept of a library and write programs that utilize libraries.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand the basic syntax of C language and can write advanced programs that utilize structures and pointers.	Understand the basic syntax of C language and can write basic programs that utilize structures and pointers.	Cannot understand the basic syntax of C language and cannot write basic programs that utilize structures and pointers.
Achievement 2	Can explain the concept of a library and can write advanced programs that utilize many libraries.	Can explain the concept of a library and can write basic programs that utilize libraries.	Cannot explain the concept of a library and cannot write programs that utilize library.

Assigned Department Objectives

Teaching Method

Outline	Following the Programming I, the course involves lectures and exercises of programming in C. In the last half of the course, students also learn about the existing libraries used in program development and how to use them. The lectures will be conducted by a teacher who engaged in the research and development of middleware (database) at Hitachi, Ltd. Research & Development Headquarters for five years.
Style	In the first half of the course, students will understand the content of the textbook and practice applied questions individually to enhance their program development skills. In this period, it is recommended that students give a lot of thought on how to solve problems on paper and make a habit of managing their history in order to know when program planning and description changes occur. In the last half of the course, libraries, which are necessary for writing more practical programs, will be explained.
Notice	Students must have completed Programming I. This course's content will amount to 90 hours of study in total. These hours include the learning time guaranteed in classes and the standard self-study time required for pre-study / review, and completing assignment reports. All assignments are required to be submitted. 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	Pointers	Can explain the concept of pointers.
		2nd	Pointers	Understand the role of pointers and can write simple programs.
		3rd	Strings and pointers	Understand the relationship between strings and pointers.
		4th	Strings and pointers	Can write programs for string operations using pointers.
		5th	Structures	Can explain the concept of structures.
		6th	Structures	Can write simple programs using structures.
		7th	Structures	Can write practical programs using structures.
		8th	Midterm exercise	Understand the content of Weeks 1-7, and can write programs.
	4th Quarter	9th	File processing	Can explain how to process files in C.
		10th	File processing	Can write programs for file I/O.
		11th	Libraries	Can explain what libraries are.
		12th	Libraries	Can write programs using libraries.
		13th	Comprehensive exercise (1)	Can write programs that realize a given theme, determining whether or not to utilize libraries.
		14th	Comprehensive exercise (2)	Can write programs that realize a given theme, determining whether or not to utilize libraries.
		15th	Comprehensive exercise (3)	Can write programs that realize a given theme, determining whether or not to utilize libraries.
		16th	Final exam	Understand the content of Weeks 8-15 and can write programs.

Evaluation Method and Weight (%)

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

Akashi College	Year	2024	Course Title	Electrical and Electronic Measurement A

Course Information

Course Code	6230	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Shun Iwasaki:「Denjiki Keisoku」、Korona-sha		
Instructor	HOSOKAWA Atsuishi		

Course Objectives

1) Understand the concept of measurement.
2) Understand how to measure DC voltage, current, power, and resistance.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can explain different measurement methods by giving specific examples.	Understand different measurement methods.	Do not fully understand different measurement methods well.
Achievement 2	Can explain DC voltage, current, power, and resistance measurements by giving specific examples.	Understand how to measure DC voltage, current, power, and resistance.	Do not fully understand how to measure DC voltage, current, power, and resistance.

Assigned Department Objectives

Teaching Method

Outline	The aim of this course is to understand the basic concepts of measuring operations and how to measure basic electrical phenomena.
Style	Classes are mainly conducted through note-taking. There will be handouts and references to the contents of the textbook as needed for explanations. In the lesson before each exam, there will be an exercise (quiz) on the content that will be on the exam.
Notice	Students must have a good understanding of Electrical Circuits I and II from their first and second year. In addition, they should apply the contents of the class to Experiments of Electrical and Computer Engineering I in the second semester of the second year. Students who miss 1/4 or more of classes will not be eligible for a grade 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	Measurement and instrumentation, direct measurement and indirect measurement	Understand the concept of measurement and the types of measurement methods (direct measurement and indirect measurement).
		2nd	Deflection method and null method	Understand the types of instrumentation methods (deflection method and null method).
		3rd	Types of errors, significant figures	Understand accuracy and error, and understand the concept of significant figures.
		4th	Propagation of error, units and standards	Can calculate measurement values taking into consideration the propagation of error, and understand the SI base units and derived units, and the relationship between standards (instruments) and traceability.
		5th	Analog indicating instruments	Understand the main configurations of analog indicating instruments.
		6th	Moving-coil instrument, electrodynamometer instrument	Understand the operating principles of indicating instruments (moving-coil instrument and electrodynamometer instrument).
		7th	Exercise on the content from weeks 1 to 6	Understand the content from weeks 1 to 6 of the first semester.
		8th	Midterm exam	Understand the content from weeks 1 to 6 of the first semester.
	2nd Quarter	9th	Shunt, multiplier	Understand how to increase the rated values of currents and voltages using a shunt and multiplier. Understand the measurement of current and voltage using an indicating instrument.
		10th	Measurement of DC current and voltage, potentiometer	Understand the measurement of current and voltage using an indicating instrument. Also, understand the voltage measurement using a potentiometer.
		11th	Indirect measurement of DC power, DC power meter	Understand the indirect measurement of DC power using the voltmeter-ammeter method and the operating principle of a power meter.
		12th	Indirect measurement of resistance, Wheatstone Bridge	Understand the indirect measurement of resistance using the voltmeter-ammeter method and the measurement of resistance using Wheatstone Bridge.

		13th	Ohmmeter	Understand the operating principles of ohmmeter.
		14th	Low resistance measurement, high resistance measurement of high resistance	Understand the issues involved in measuring low and high resistance and how to resolve them.
		15th	Exercise on the content from weeks 9 to 14	Understand the content from weeks 9 to 14 of the first semester.
		16th	Final exam	Understand the content from weeks 9 to 14 of the first semester.

Evaluation Method and Weight (%)

	Examination	Exercise	Task	Total
Subtotal	70	30	0	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	70	30	0	100
Cross Area Proficiency	0	0	0	0

Akashi College	Year	2024	Course Title	Electrical and Electronic Measurement B

Course Information

Course Code	6231	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	HOSOKAWA Atsuishi		

Course Objectives

1) Understand how to measure AC voltage, current, power, and impedance.
2)Understand how to observe a waveform using an oscilloscope.
3) Understand digital instruments, sensors, and data processing.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can explain AC voltage, current, power, and impedance measurements by giving specific examples.	Understand how to measure AC voltage, current, power, and impedance.	Do not fully understand how to measure AC voltage, current, power, and impedance.
Achievement 2	Can explain waveform observation using an oscilloscope by giving specific examples.	Understand how to observe a waveform using an oscilloscope.	Do not fully understand how to observe a waveform using an oscilloscope well.
Achievement 3	Can explain digital instruments, sensors, and data processing by giving specific examples.	Understand digital instrumentation, sensors, and data processing	Do not fully understand digital instruments, sensors, and data processing.

Assigned Department Objectives

Teaching Method

Outline	The aim of this course is to understand the basic concepts of measuring operations and how to measure basic electrical phenomena.
Style	Classes are mainly conducted through note-taking. There will be handouts and references to the contents of the textbook as needed for explanations. In the lesson before each exam, there will be an exercise (quiz) on the content that will be on the exam.
Notice	Students must have a good understanding of Electrical Circuits I and II from their first and second year. In addition, they should apply the contents of the class to Experiments of Electrical and Computer Engineering I in the second semester of the second year. Students who miss 1/4 or more of classes will not be eligible for a grade 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	AC voltage, current, power, measurement of AC voltage and current	Understand the measurand in AC, and the difference between AC and DC measurements.
		2nd	Rectifier instrument, peak responding electronic voltmeter	Understand the operating principles of indicating instruments (rectifier instrument and peak responding electronic voltmeter).
		3rd	Thermocouple instruments, moving-iron instruments	Understand the operating principles of the indicating instruments (thermocouple instrument and moving iron instrument).
		4th	Electrodynamometer instruments, AC electrodynamometers, and induction type energy meters	Understand the principles of measuring energy. Can explain the principles and methods of measuring effective power, reactive power, and power factor.
		5th	Resistors, coils, and capacitors, measurement of impedance	Understand an equivalent circuit of resistors, coils, and capacitors, and how to measure impedance.
		6th	AC bridges	Understand the measurement of impedance using an AC bridge.
		7th	Exercise on the content from weeks 16 to 21	Understand the content from weeks 1 to 6 of the second semester.
		8th	Midterm exam	Understand the content from weeks 1 to 6 of the second semester.
	4th Quarter	9th	The operating principle of the oscilloscope	Understand the operating principles of the oscilloscope.
		10th	Waveform observations using an oscilloscope	Understand waveform observation using an oscilloscope.
		11th	A/D conversion	Understand the principles of A/D conversion.
		12th	Digital instruments	Understand the operating principles of digital instruments.
		13th	Sensors	Understand the concept of sensors and the operating principles of various sensors.

		14th	Data processing	Understand how to process data.
		15th	Exercise on the content from weeks 24 to 30	Understand the content from weeks 9 to 14 of the second semester.
		16th	Final exam	Understand the content from weeks 9 to 14 of the second semester.

Evaluation Method and Weight (%)

	Examination	Exercise	Task	Total
Subtotal	70	15	15	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	70	15	15	100
Cross Area Proficiency	0	0	0	0

Akashi College	Year	2024	Course Title	Microcomputer

Course Information

Course Code	6232	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Keitaro HORI, Illustrated PIC Microcomputer Practice 2nd Edition, Morikita Publishing Co., Ltd.		
Instructor	NOMURA Hayato		

Course Objectives

(1) Understand the configuration and operating principles of computers.
(2) Understand the basics of the assembler language and can perform basic programming.
(3) Can create a control program using assembler language.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Fully understand the configuration and operating principles of computers.	Understand the configuration and operating principles of computers.	Do not understand the configuration and operating principles of computers.
Achievement 2	Fully understand the basics of assembler language and can fully perform basic programming.	Understand the basics of assembler language and can perform basic programming.	Do not understand the basics of assembler language and cannot perform basic programming.
Achievement 3	Can create an efficient control program using assembler language.	Can create a control program using assembler language.	Cannot create a control program using assembler language.

Assigned Department Objectives

Teaching Method

Outline	Students will understand the basics of computer architecture and learn assembler programming techniques using microcomputers.
Style	The class will be taught by explaining basic matters in accordance with the textbook. Programming using assembler language will involve exercises using actual devices in addition to lectures.
Notice	This course's content will amount to 90 hours of study in total. These hours include the learning time guaranteed in classes and the standard self-study time required for pre-study / review, and completing assignment reports. 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	Microcomputer basics	Can explain microcomputer basics.
		2nd	How to do radix conversions	Can explain how to do a radix conversion.
		3rd	The basics of logical operations	Can explain the basics of logical operations.
		4th	Hardware configuration of a PIC microcomputer	Can explain the hardware configuration of a PIC microcomputer.
		5th	Assembler language basics, flowchart basics	Can explain the assembler language basics and flowchart basics.
		6th	Assembler programming exercise 1 (how to create a program)	Can explain how to create a program using the assembler language.
		7th	How to create a timer program	Can explain how to create a timer program.
		8th	Midterm exam	
	2nd Quarter	9th	Behaviors of subroutines	Can explain the behaviors of subroutines.
		10th	Assembler programming exercise 2 (I/O control)	Can create I/O control programs.
		11th	Assembler programming exercise 3 (timer program basics)	Can create a timer program.
		12th	Pulse motor basics	Can explain the pulse motor basics.
		13th	Assembler programming exercise 4 (application of timer programs)	Can create an applied timer program.
		14th	Assembler programming exercise 5 (pulse motors)	Can create a pulse motor.
		15th	Assembler programming exercise 6 (advanced program)	Can create an advanced program.
		16th	No final exam	

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Exercises	Total
Subtotal	50	0	0	0	0	50	100

Basic Proficiency	10	0	0	0	0	10	20
Specialized Proficiency	40	0	0	0	0	40	80
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Experiments of Electrical and Computer Engineering I

Course Information

Course Code	6233	Course Category	Specialized / Compulsory
Class Format	Experiment	Credits	School Credit: 2
Department	Electrical and Computer Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	4
Textbook and/or Teaching Materials	Distribute materials in class		
Instructor	KAJIMURA Yoshihiro,SUYAMA Taikei,HOSOKAWA Atsuishi,		

Course Objectives

Evaluation point 1: Can explain how to handle the necessary instruments for learning electrical information engineering.
Evaluation point 2: Can write an experiment report.
Evaluation point 3: Can use the necessary instruments for an experiment safely, and conduct an experiment in cooperation with team members.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can explain how to handle the necessary instruments for learning electrical information engineering, and examine an experiment.	Can explain how to handle the necessary instruments for learning electrical information engineering.	Cannot explain how to handle the necessary instruments for learning electrical information engineering.
Achievement 2	Can write an experiment report with sufficient information.	Can write an experiment report.	Cannot write an experiment report.
Achievement 3	Can use the necessary instruments for an experiment safely, and actively conduct an experiment in cooperation with team members.	Can use the necessary instruments for an experiment safely, and conduct an experiment in cooperation with the team members.	Cannot use the necessary instruments for an experiment safely, and conduct an experiment in cooperation with team members.

Assigned Department Objectives

Teaching Method

Outline	The aim of this course is to learn how to handle the necessary instruments for learning electrical information engineering, and how to write reports. Several instructors will teach different experiment themes, and students will form groups of three to five people to conduct experiments on each theme. Suyama will teach matters related to measuring equipment, Akiyama matters related to electrical circuits, Kajimura sequencing, and Hosokawa DC bridges.
Style	Students will form groups of three to five people to conduct experiments on each theme. The themes are provided in Contents and Method of Course. After completing experiments on each theme, students must write up a report on the experiment and submit it the instructor teaching that theme. They will have to revise it until they pass. This will help students learn the basics of writing up a report.
Notice	Students will not be graded unless they have participated in all experiments. The overall evaluations will be based on the report submission and content (80%), and attitude toward the experiments (20%). The minimum score for a pass will be 60%. As this is an experiment course, submitting all reports is a prerequisite for evaluations. In addition, if all reports have not been received by the due date, students will not receive a passing grade. Students must clean the lab and put away the equipment. Precautions regarding the experiments will be given during the first week. Students will not be graded unless they have participated in all experiments.

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	Experiment guidance	Understand the outline of experiments and how to write up a report.
		2nd	Impedance measurement	Impedance measurement experiment: create a circuit, conduct a lab, and write up a report.
		3rd	Potentiometer	Potentiometer experiment: create a circuit, conduct a lab, and write up a report.
		4th	Report organization	Can write up a report on engineering experiments.
		5th	Fall-of-potential method	An experiment of the fall-of-potential method: create a circuit, conduct a lab, and write up a report.
		6th	Report organization	Can write up a report on engineering experiments.
		7th	Operational Amplifier	Operational Amplifier experiment: create a OP Amp circuit, confirm the Slew Rate, and write up a report on the day.
		8th	DC bridges	A DC bridge experiment: create a circuit, conduct a lab, and write up a report.
	4th Quarter	9th	Report organization	Can write up a report on engineering experiments.

		10th	Relay sequence control 1	Conduct a sequence control experiment using switches, motors, and relays, and write up a report.
		11th	Relay sequence control 2	Continuing from the previous week, conduct an experiment of sequence control using switches, motors, and relays, and write up a report.
		12th	Digital oscilloscope and digital multimeter	A digital oscilloscope and digital multimeter experiment: create a circuit, conduct a lab, and write up a report.
		13th	Report organization	Can write up a report on engineering experiments.
		14th	Assembling a computer	A computer assembling experiment: create a circuit, conduct a lab, and write up a report.
		15th	Summary of engineering experiments	Can write up a report on engineering experiments.
		16th	No final exam	

Evaluation Method and Weight (%)

	Report	Initiatives	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	80	20	0	0	0	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	80	20	0	0	0	0	100
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Japanese III -1

Course Information

Course Code	6301	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	『精選論理国語』『精選文学国語』『精選古典探究　古文編』（明治書院）、『新訂総合国語便覧』（第一学習社）		
Instructor	TANGE Atsuko		

Course Objectives

1) 論理的な文章（論説や評論）の構成や展開を的確にとらえ、要約することができる。
2) 文学的な文章（小説や日記）に描かれた人物やものの見方を表現に即して読み取り、自分の意見を述べることができる。
3) 社会生活の中で用いられる漢字や語句について正確に理解し、活用することができる。

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	論理的な文章（論説や評論）の構成や展開を的確にとらえ、要約した上で、その論拠の妥当性について議論することができる。	論理的な文章（論説や評論）の構成や展開をとらえ、おおむね要約することができる。	論理的な文章（論説や評論）の構成や展開を的確にとらえることができない。
評価項目2	文学的な文章（小説や日記）に描かれた人物やものの見方を表現に即して読み取り、その特質を理解することができる。	文学的な文章（小説や日記）に描かれた人物やものの見方を表現に即して適切に読み取ることができる。	文学的な文章（小説や日記）に描かれた人物やものの見方を十分に読み取ることができない。
評価項目3	社会生活の中で用いられる漢字や語句について正確に理解し、活用することができる。	社会生活の中で用いられる漢字や語句についておおむね正確に理解し、活用することができる。	辞書など補助的な機器がなければ、社会生活の中で用いられる漢字や語句について正確に理解し、活用することができない。

Assigned Department Objectives

Teaching Method

Outline	近現代の評論文や小説、古典文学など、様々な文章を主体的に読むことを通して、日本語及び日本文化の基本的な知識を習得する。豊かな感性と論理的な思考力を身につけ、的確な読解力と表現力を獲得する。
Style	講義形式を基本とする。随時、小テストや課題を課す。
Notice	自主的に予習を行い、授業には集中して意欲的に取り組むこと。 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
1st Semester	1st Quarter	1st	ガイダンス、「変われ！東京」の読解	授業の進行・準備物について理解することができる
		2nd	「変われ！東京」の読解	テキストに用いられている語句・表現を適切に理解することができる
		3rd	「変われ！東京」の読解	テキストの構成をとらえ、内容を適切に理解することができる
		4th	「変われ！東京」の読解	内容を理解した上で、自分の意見を述べることができる
		5th	「花山天皇の退位」（大鏡）の読解	歴史的背景を理解し、テキストを読解することができる
		6th	「花山天皇の退位」（大鏡）の読解	助動詞や尊敬表現など文法事項に注意して、テキストを読解することができる
		7th	「花山天皇の退位」（大鏡）の読解	作品の主題と特徴を説明することができる
		8th	「町の小路の女」（蜻蛉日記）の読解	歴史的背景を理解し、テキストを読解することができる
	2nd Quarter	9th	「町の小路の女」（蜻蛉日記）の読解	助動詞や尊敬表現など文法事項に注意して、テキストを読解することができる
		10th	「町の小路の女」（蜻蛉日記）の読解	作品の主題と特徴を説明することができる
		11th	「檸檬」の読解	時代背景や登場人物を正確にとらえ、小説の世界を理解することができる
		12th	「檸檬」の読解	表現・構成に注意して小説の展開を理解することができる
		13th	「檸檬」の読解	表現・構成に注意して小説の展開を理解することができる
		14th	「檸檬」の読解	表現・構成に注意して小説の展開を理解することができる
		15th	「檸檬」の読解	小説の展開を整理し、全体的な主題を理解することができる
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	小テスト	態度	その他	Total

Subtotal	80	10	10	0	100
基礎的能力	80	10	10	0	100
専門的能力	0	0	0	0	0
分野横断的能力	0	0	0	0	0

Akashi College	Year	2024	Course Title	Japanese III -2

Course Information

Course Code	6302	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	野田尚史・森口稔『日本語を話すトレーニング』（ひつじ書房）		
Instructor			

Course Objectives

1) Can write up reports and theses based on organized information, and can devise logical structure and development so that their arguments are conveyed effectively.
2) Can present the content of the reports and theses they wrote up, as well as their thoughts and ideas, orally and accurately.
3) Can discuss on the issue based on rationale.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can create an easy-to-understand, logical, and empirical resume with excellent layout design based on clear conclusions, opinions, and reports.	Can create an easy-to-understand, logical, and empirical resume based on clear conclusions, opinions, and reports.	There are elements that indicate conclusion, opinions, and reports, but the structure and layout design are inadequate.
Achievement 2	Can give a presentation with excellent gesture, speed, and comprehensibility, and can response to questions accurately.	Can give a rehearsed presentation, but cannot immediately answer questions appropriately.	The presentation is almost like a script reading.
Achievement 3	Can make a meaningful statement in line with the theme in a concise, logical, and empirical way.	Can make a meaningful statement that's relevant to the theme, but is redundant.	Can make a statement that's relevant to the theme, but is unorganized.

Assigned Department Objectives

Teaching Method

Outline	Students will take up various issues in various situations where Japanese is used, and deepen their understanding of the expressions of Japanese and the characteristics of Japan people's ideas. Group discussions will be held for each theme, and presentation skills will be acquired.
Style	The course is based on a lecture format, but focuses on group discussions, presentations, and question-and-answer sessions by students.
Notice	This course's content will amount to 90 hours of study in total. These hours include the learning time guaranteed in classes and the standard self-study time required for pre-study / review, and completing assignment reports. Students should be active in presentations and Q&A sessions, including pre-study, to ensure they learn the knowledge and skills necessary to express in Japanese language. There will be handouts as necessary, and quizzes. 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	Orientation Course outline Planning for the presentation	Understand how to create a resume, presentation notes, and the respective evaluation criteria.
		2nd	Fundamentals of speech Fundamentals of presentation	Understand the skills required for speeches and presentations, can be put into practice.
		3rd	Make an inquiry Training 1 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		4th	Make a request Training 3 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		5th	Invite / Decline / Apologize Training 5 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		6th	Speech Training 9 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		7th	Simple Japanese Training 12 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		8th	Speak in a meeting(1) Training 10 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.

	4th Quarter	9th	Speak in a meeting(2), Presentation(1) Training 12・13 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		10th	Presentation(2) Training 13 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		11th	Research Presentation(1) Training 14 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		12th	Research Presentation(2), Interview(1) Training 15 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		13th	Interview(2) Training 15 presentations and Q&A Insight and organization of the above issues	Understand the subject matter and be able to prepare and present a resume focusing on the necessary skills.
		14th	Fundamentals of academic writing	Understand how to develop a research plan and the basics of writing a thesis
		15th	How to write reports and papers	Understand how to structure sentences, make arguments, and show appropriate examples
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Presentation	Other	Total
Subtotal	50	50	0	100
Basic Proficiency	50	50	0	100
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	0	0	0

Akashi College	Year	2024	Course Title	Political Science-1

Course Information

Course Code	6303	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
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 politics.
2. Objectively understand the role of politics in addressing the challenges and issues that changes over time.
3. Develop the ability to objectively examine not only what has happened in Japan but also it's position in the international community, the roles and responsibilities expected of Japan, and the roles and challenges it has undertaken.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Thoroughly understand the basic knowledge regarding politics.	Have basic knowledge regarding politics.	Do not have sufficient basic knowledge regarding politics.
Achievement 2	Can objectively explain the roles that politics have been expected to play in order to address its issues and problems.	Can understand the roles that politics have been expected to play in order to address its issues and problems.	Do not have sufficient understanding of the roles that politics have been expected to play in order to address issues and problems.
Achievement 3	Attempting to contemplate and understand the historical and social circumstances surrounding individuals, while endeavoring to form one's own thoughts.	Recognizing the presence of historical and social circumstances surrounding individuals, and deepening one's own thoughts.	Cannot recognize the existence of historical and social circumstances surrounding individuals.

Assigned Department Objectives

Teaching Method

Outline	In this course, we will deepen our understanding of what politics (political science) entails from a broad perspective, including fields such as economics, society, culture, and the international environment. Furthermore, by examining how politics has addressed the challenges and issues that change with the times, we will consider contemplate who acts under what institutions and what actions they take.
Style	The lectures primarily utilize handouts and whiteboard notes, but to make the class interactive, active participation and independent thinking are encouraged from the students.
Notice	In this course, we systematically explain the concepts of political science, but depending on the students' understanding, we may adjust the themes and the order in which they are covered in each lectureclass. Students who miss 1/3 or more of classes lectures 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 is Politics?	Learn about the relationship between politics and power. Formulate your own opinion on the question: What is politics?
		2nd	Introduction to Political Science	Understand the theories and institutions in political science, and explore the relationship between theory and reality.
		3rd	The Birth and Evolution of Modern Nation-States	Understand the transition from Night-watchman State to Welfare State and its background.
		4th	Political System and Political Dynamics	Learn about how various political systems have been constructed throughout the world.
		5th	Organization of Government①	Understand the functions and roles of the legislative and judicial branches. Also, learn about the challenges each of them faces.
		6th	Organization of Government② Local autonomy	Understand the powers and organization of the cabinet, which oversees the executive branch. Learn about the essence of local governance and its recent developments.
		7th	Bureaucracy	Examine the roles expected from a bureaucracy and the challenges it faces.
		8th	Review of the first half of the first semester (1st Q)	Review the content from weeks 1-7.
	2nd Quarter	9th	Party system Interest groups/pressure groups	Learn about the historical development of party politics. In addition, students will understand the modern roles and challenges of political parties, interest groups, and pressure groups as organizations that participate in politics.

		10th	Elections Voting Behavior and Political Participation	Understand the role of elections in democratic politics. Also, contemplate the various forms of political participation.
		11th	Policy Making and its Process	Consider how and when political decisions are made.
		12th	Political Consciousness and Public Opinion	Reflect on what drives politics. Also, understand the significant influence of the media.
		13th	Postwar Politics in Japan①	Understand Japan's positioning after World War II, what was expected as a result, and the policies that have been implemented accordingly.
		14th	Postwar Politics in Japan②	Consider the concept of the "1955 System". Additionally, understand Japan's journey to becoming an economic powerhouse, considering both domestic and international factors comprehensively.
		15th	Postwar Politics in Japan③	Understand the impact of changes such as the end of the Cold War, the collapse of the "1955 System," and the bursting of the economic bubble on Japanese politics. Additionally, comprehend the societal shifts that followed and contemplate the challenges and issues Japan is currently facing.
		16th	Final exam	Take a written exam.

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	40	30	20	10	0	0	100
Basic Proficiency	40	30	20	10	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	Political Science-2

Course Information

Course Code	6304	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second 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 politics.
2. Objectively understand the role of politics in addressing the challenges and issues that changes over time.
3. Develop the ability to objectively examine not only what has happened in Japan but also it's position in the international community, the roles and responsibilities expected of Japan, and the roles and challenges it has undertaken.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Thoroughly understand the basic knowledge regarding politics.	Have basic knowledge regarding politics.	Do not have sufficient basic knowledge regarding politics.
Achievement 2	Can objectively explain the roles that politics have been expected to play in order to address its issues and problems.	Can understand the roles that politics have been expected to play in order to address its issues and problems.	Do not have sufficient understanding of the roles that politics have been expected to play in order to address issues and problems.
Achievement 3	Attempting to contemplate and understand the historical and social circumstances surrounding individuals, while endeavoring to form one's own thoughts.	Recognizing the presence of historical and social circumstances surrounding individuals, and deepening one's own thoughts.	Cannot recognize the existence of historical and social circumstances surrounding individuals.

Assigned Department Objectives

Teaching Method

Outline	In this course, we will deepen our understanding of what politics (political science) entails from a broad perspective, including fields such as economics, society, culture, and the international environment. Furthermore, by examining how politics has addressed the challenges and issues that change with the times, we will consider contemplate who acts under what institutions and what actions they take.
Style	The lectures primarily utilize handouts and whiteboard notes, but to make the class interactive, active participation and independent thinking are encouraged from the students.
Notice	In this course, we systematically explain the concepts of political science, but depending on the students' understanding, we may adjust the themes and the order in which they are covered in each lectureclass. Students who miss 1/3 or more of classes lectures 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: Political Thought and International Politics	Learn about the relationship between politics and philosophy, as well as the relationship between states. Form your own opinion on what politics is.
		2nd	National Sovereignty, Social Contract Theory	Learn about the rights of the state and the nature of the state.
		3rd	Freedom and Liberalism	Learn about the historical context in which the pursuit of freedom emerged, and reflect on the roles expected and challenges faced by liberalism.
		4th	Equality and Democracy, Socialism and Communism	Learn about the historical background in which the pursuit of equality emerged, and reflect on the roles expected and challenges faced by democracy and socialism.
		5th	Mass Society and Fascism, Nationalism	Learn about the formation and changes in mass society, and contemplate the challenges modern states are facing.
		6th	History of International Politics①	Learn about the history from the emergence of sovereign states to World War I, and contemplate the challenges the states have faced and their responses.
		7th	History of International Politics②	Learn about the history from World War II to the end of the Cold War, and contemplate the challenges the states have faced and their responses.
		8th	Review of the first half of the first semester (1st Q)	Review the content from weeks 1-7.
	4th Quarter	9th	International Society and Domestic Society	Understand the relationship and characteristics between international politics and domestic politics.

		10th	International Political Theory Foreign Policy Decision-making	Learn perspectives on international politics and reflect on their roles, limitations, and the complexity of interstate relations.
		11th	National Security	Learn what national security is and consider what and how nations try to protect their rights.
		12th	International Political Economy	Understand that politics and economics are interrelated in the international community as well.
		13th	International Organizations, Regional Organizations	Learn about multilateral organizations and understand the roles expected of them and the challenges they face.
		14th	Contemporary International Political Issues①	Use current issues as examples to discuss and deepen understanding from various perspectives, considering both domestic and international situations.
		15th	Contemporary International Political Issues②	Use current issues as examples to discuss and deepen understanding from various perspectives, considering both domestic and international situations.
		16th	Final exam	Take a written exam.

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	40	30	20	10	0	0	100
Basic Proficiency	40	30	20	10	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 Ⅲ A-1

Course Information

Course Code	6305	Course Category	General / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	高遠節夫他著：新微分積分Ⅱ　大日本図書　　高遠節夫他著：新微分積分Ⅱ問題集　大日本図書		
Instructor	MATSUMIYA Atusi		

Course Objectives

これまでに学習した数学を基礎として、工学技術者として大切な数学的思考と問題解決能力を養う。さらに専門的な応用数学が理解できる能力を習得することを目標とする。
(1)まず数列の収束・発散,級数の収束・発散,マクローリン級数を理解する。そして2変数関数を空間における曲面として理解し、偏微分や重積分の計算ができるようになる。
(2) 理論の忠実な理解と自らも理論的に文章表現できる能力を獲得する。
(3) 抽象的枠組を具体的問題に適用する能力を獲得する。

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	数列の収束・発散,級数の収束・発散,マクローリン級数を理解が十分にできる。そして2変数関数を空間における曲面として十分に理解し、偏微分や重積分の計算が十分にできる。	数列の収束・発散,級数の収束・発散,マクローリン級数を理解できる。そして2変数関数を空間における曲面として理解でき、偏微分や重積分の計算ができる。	数列の収束・発散,級数の収束・発散,マクローリン級数を理解できない。そして2変数関数を空間における曲面として理解できず、偏微分や重積分の計算ができない。
評価項目2	理論の忠実な理解と自らも理論的に文章表現できる能力を十分に獲得している。	理論の忠実な理解と自らも理論的に文章表現できる能力を獲得している。	理論の忠実な理解と自らも理論的に文章表現できる能力を獲得していない。
評価項目3	抽象的枠組を具体的問題に適用する能力を十分に獲得している。	抽象的枠組を具体的問題に適用する能力を獲得している。	抽象的枠組を具体的問題に適用する能力を獲得していない。

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、専門分野で応用する際のさまざまな事象の解析に必要な素養を獲得する。主に数列の収束と発散,級数の収束と発散,マクローリン展開,2変数関数の偏微分とその応用、2重積分とその応用について講義する。
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	講義時にしっかり理解に努めること。疑問点は必ず質問して、その都度解消するように努めること。またその日のうちに必ず復習し教科書や問題集の問題を解いて問題演習を十分すること。予告なく小試験を行うので日頃からよく勉強しておくこと。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、後期中間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。本科目は、授業で保証する学習時間と、予習・復習及び課題レポート作成に 必要な標準的な自己学習時間の総計が、180時間に相当する学習内容である。

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	微分方程式	２階微分方程式について理解し、簡単な２階微分方程式の問題を解くことができる。
		2nd	微分方程式	定数係数非斉次線形微分方程式などいろいろな簡単な２階微分方程式を解くことができる。
		3rd	関数の展開	多項式による近似を求めることができる。簡単な1変数関数の局所的な1次近似式・２次近似式を求めることができる。
		4th	関数の展開	多項式による近似を求めることができる。
		5th	関数の展開	不定形を含むいろいろな数列の極限を求めることができる。
		6th	関数の展開	無限等比級数等の簡単な級数の収束・発散を調べ、その和を求めることができる。
		7th	関数の展開	無限等比級数等の簡単な級数の収束・発散を調べ、その和を求めることができる。
		8th	関数の展開	1変数関数のマクローリン展開を理解し、基本的な関数のマクローリン展開を求めることができる。
	2nd Quarter	9th	関数の展開	1変数関数のテイラー展開を理解し、基本的な関数のテイラー展開を求めることができる。
		10th	関数の展開	オイラーの公式を用いて、複素数変数の指数関数について簡単な計算ができる。
		11th	偏微分法	２変数関数について理解し簡単な曲面を考えることができる。2変数関数の定義域を理解し、不等式やグラフで表すことができる。

		12th	偏微分法	偏導関数を求めることができる。
		13th	偏微分法	全微分の概念を理解し全微分に関する計算ができる。
		14th	偏微分法	接平面の方程式を求めることができる。
		15th	偏微分法	合成関数の偏微分法を理解し、偏導関数を求めることができる。
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	課題	平常点（授業への取り組み状況）	Total
Subtotal	50	20	30	100
基礎的能力	50	15	30	95
専門的能力	0	0	0	0
分野横断的能力	0	5	0	5

Akashi College	Year	2024	Course Title	Mathematics Ⅲ A-2

Course Information

Course Code	6306	Course Category	General / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	高遠節夫他著：新微分積分Ⅱ　大日本図書　　高遠節夫他著：新微分積分Ⅱ問題集　大日本図書		
Instructor	MATSUMIYA Atusi		

Course Objectives

これまでに学習した数学を基礎として、工学技術者として大切な数学的思考と問題解決能力を養う。さらに専門的な応用数学が理解できる能力を習得することを目標とする。
(1)まず数列の収束・発散,級数の収束・発散,マクローリン級数を理解する。そして2変数関数を空間における曲面として理解し、偏微分や重積分の計算ができるようになる。
(2) 理論の忠実な理解と自らも理論的に文章表現できる能力を獲得する。
(3) 抽象的枠組を具体的問題に適用する能力を獲得する。

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	数列の収束・発散,級数の収束・発散,マクローリン級数を理解が十分にできる。そして2変数関数を空間における曲面として十分に理解し、偏微分や重積分の計算が十分にできる。	数列の収束・発散,級数の収束・発散,マクローリン級数を理解できる。そして2変数関数を空間における曲面として理解でき、偏微分や重積分の計算ができる。	数列の収束・発散,級数の収束・発散,マクローリン級数を理解できない。そして2変数関数を空間における曲面として理解できず、偏微分や重積分の計算ができない。
評価項目2	理論の忠実な理解と自らも理論的に文章表現できる能力を十分に獲得している。	理論の忠実な理解と自らも理論的に文章表現できる能力を獲得している。	理論の忠実な理解と自らも理論的に文章表現できる能力を獲得していない。
評価項目3	抽象的枠組を具体的問題に適用する能力を十分に獲得している。	抽象的枠組を具体的問題に適用する能力を獲得している。	抽象的枠組を具体的問題に適用する能力を獲得していない。

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、専門分野で応用する際のさまざまな事象の解析に必要な素養を獲得する。主に数列の収束と発散,級数の収束と発散,マクローリン展開,2変数関数の偏微分とその応用、2重積分とその応用について講義する。
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	講義時にしっかり理解に努めること。疑問点は必ず質問して、その都度解消するように努めること。またその日のうちに必ず復習し教科書や問題集の問題を解いて問題演習を十分すること。予告なく小試験を行うので日頃からよく勉強しておくこと。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、後期中間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。本科目は、授業で保証する学習時間と、予習・復習及び課題レポート作成に 必要な標準的な自己学習時間の総計が、180時間に相当する学習内容である。

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	偏微分法の応用	簡単な関数について、2次までの偏導関数を求めることができる。簡単な関数について、高次偏導関数を求めることができる。
		2nd	偏微分法の応用	偏導関数を用いて、基本的な2変数関数の極値を求めることができる。
		3rd	偏微分法の応用	陰関数の微分法を応用した計算が出来る。
		4th	偏微分法の応用	条件付き極値の問題を解くことが出来る。
		5th	偏微分法の応用	包絡線の方程式を求めることが出来る。偏微分に関する応用問題が解ける。
		6th	２重積分	2重積分の定義を理解できる。
		7th	２重積分	2重積分の性質を理解できる。
		8th	２重積分	2重積分の定義を理解し、簡単な2重積分を累次積分に直して求めることができる。
	4th Quarter	9th	２重積分	２重積分の順序の入れ替えができる。様々な２重積分の計算ができる。
		10th	２重積分	２重積分を用いて、簡単な立体の体積を求めることができる。
		11th	変数の変換と重積分	極座標に変換することによって２重積分を求めることができる。
		12th	変数の変換と重積分	重積分の変数変換が計算できる。
		13th	変数の変換と重積分	広義積分を求めることが出来る。

		14th	変数の変換と重積分	重積分を用いて曲面積を求めることが出来る。
		15th	変数の変換と重積分	重積分を用いて平均と重心を求めることが出来る。
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	課題	平常点（授業への取り組み状況）	Total
Subtotal	50	20	30	100
基礎的能力	50	15	30	95
専門的能力	0	0	0	0
分野横断的能力	0	5	0	5

Akashi College	Year	2024	Course Title	Mathematics Ⅲ B

Course Information

Course Code	6307	Course Category	General / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	新線形代数Ⅰ　高遠節夫ほか5名共著（大日本図書）		
Instructor			

Course Objectives

(1) Understand the definition and basic properties of linear transformation by matrix and learn its computational techniques.
(2) Understand the definition of matrix eigenvalues and eigenvectors, and learn computational techniques for diagonal matrices.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Learn and can use basic computing techniques for matrices.	Understand the basic computing techniques for matrices.	Do not understand the basic computing techniques for matrices.
Achievement 2	Learn and can use some advanced computational techniques for matrices and vectors.	Understand some advanced computational techniques for matrices and vectors.	Do not understand the more advanced computing techniques for column vectors.

Assigned Department Objectives

Teaching Method

Outline	Students will learn the application of matrices as the basis of linear algebra.
Style	Classes will be conducted through lectures and exercises, scheduled assignments and quizzes, etc.
Notice	The following items are essential for taking this course. New Linear Algebra I (textbook above) Ch. 2: Matrices, Ch. 3: Matrices 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	Linear transformation	Understand the definition of a linear transformation.
		2nd	Linear transformation	Understand and can apply the nature of linear transformations.
		3rd	Linear transformation	Understand and can calculate synthesis transformations.
		4th	Linear transformation	Understand and can calculate reverse conversion.
		5th	Linear transformation	Understand and can calculate the linear transformation representing the rotation.
		6th	Linear transformation	Understand and can calculate the nature of orthogonal transformations.
		7th	Summary	Review / development
		8th	Exercise	Exercise
	2nd Quarter	9th	Eigenvalues and their applications	Understand the definitions of eigenvalues and eigenvectors.
		10th	Eigenvalues and their applications	Can calculate eigenvalues and eigenvectors.
		11th	Eigenvalues and their applications	Understand diagonal matrices.
		12th	Eigenvalues and their applications	Can calculate for diagonal matrices.
		13th	Eigenvalues and their applications	Understand and can calculate the probability of diagonals.
		14th	Eigenvalues and their applications	Understand and can calculate the diagonals of a symmetric matrix by an orthogonal matrix.
		15th	Exercise	Exercise
		16th	Exam	

Evaluation Method and Weight (%)

	Exam	Presentation	Attendance	Total
Subtotal	40	30	30	100
Basic Proficiency	40	30	30	100
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	0	0	0

Akashi College	Year	2024	Course Title	Basic Mechanics

Course Information

Course Code	6308	Course Category	General / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	OGASAWARA Hiromichi		

Course Objectives

1. Can handle force and motion based on the basic laws of mechanics, including handling by calculus.
2. Can make a deductive inference based on basic matters, including reading and writing logical sentences containing mathematical formulas.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can handle forces and motions accurately based on the basic laws of mechanics.	Can handle forces and motions based on the basic laws of mechanics.	Cannot handle forces and motions based on the basic laws of mechanics.
Achievement 2	Can accurately make a deductive inference based on basic matters.	Can make a deductive inference based on basic matters.	Cannot make a deductive inference based on basic matters.

Assigned Department Objectives

Teaching Method

Outline	We will learn about mechanics using calculus.
Style	Classes will be taught in a lecture style, and there will also be practice and quizzes.
Notice	This course's content will amount to 90 hours of study in total. These hours include the learning time guaranteed in classes and the standard self-study time required for pre-study / review and completing assignment reports. Students must pre-study, review, and solve exercise questions for each class. Instead of learning each knowledge (the result of applying the law to a particular situation, how to solve the problem) by memorizing it individually, students should understand the laws that govern them (including being able to apply them to specific situations). To do it, if necessary, review the content learned during the previous years. Also, students should be aware of the relationships between the various laws and try to understand concepts in physics systematically. 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	Position, velocity, and acceleration	Can describe motions of a point mass based on calculus.
		2nd	Position, velocity, and acceleration	Can describe motions of a point mass based on calculus.
		3rd	Laws of motion	Can explain the laws of motion and apply them to specific problems.
		4th	Laws of motion	Can explain the laws of motion and apply them to specific problems.
		5th	Work and energy	Can explain the concepts concerned with work and energy, and apply them to specific problems.
		6th	Work and energy	Can explain the concepts concerned with work and energy, and apply them to specific problems.
		7th	Work and energy	Can explain the concepts concerned with work and energy, and apply them to specific problems.
		8th	Impulse and momentum	Can explain the concepts concerned with impulse and momentum, and apply them to specific problems.
	4th Quarter	9th	Impulse and momentum	Can explain the concepts concerned with impulse and momentum, and apply them to specific problems.
		10th	Problem as summarized example	Understand the content learned in the first half of this course deeper through an example problem.
		11th	Oscillation	Understand the typical techniques for handling oscillations and apply them to specific problems.
		12th	Oscillation	Understand the typical techniques for handling oscillations and apply them to specific problems.
		13th	Oscillation	Understand the typical techniques for handling oscillations and apply them to specific problems.
		14th	Fluid dynamics	Can apply the content learned in the first half of this course to fluids.
		15th	Fluid dynamics	Can apply the content learned in the first half of this course to fluids.
		16th	Final exam	

Evaluation Method and Weight (%)				
	Examination	Practice / Quizzes	Attendance / Behavior	Total
Subtotal	30	50	20	100
Basic Proficiency	30	50	20	100
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	0	0	0	0

Akashi College	Year	2024	Course Title	Science Ⅲ -1

Course Information

Course Code	6309	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	「新編　化学」（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. 物質の状態に関する基本事項について説明や計算ができる。
2. 化学反応に関する基本事項について説明や計算ができる。
3. 無機物質に関する基本事項について説明や計算ができる。
4. 有機物質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	物質の状態に関する基本事項について的確な説明や正確な計算が十分にできる。	物質の状態に関する基本事項について説明や計算ができる。	物質の状態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	化学反応に関する基本事項について的確な説明や正確な計算が十分にできる。	化学反応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	無機物質に関する基本事項について的確な説明や正確な計算が十分にできる。	無機物質に関する基本事項について説明や計算ができる。	無機物質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	有機物質に関する基本事項について的確な説明や正確な計算が十分にできる。	有機物質に関する基本事項について説明や計算ができる。	有機物質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、様々な化合物の性質や反応について講義形式で授業を行うものである。化学基礎(サイエンスIIB)で学習した内容をもとに、様々な化学物質の性質や化学反応について学ぶ。化学を通して科学的思考を養う。
Style	平素は講義形式で授業を行る。 理解度を確かめるために小テスト等を適宜実施する。
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して欲しい。 CBTについては、日時を振り替えて行うことがある。 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
1st Semester	1st Quarter	1st	物質の状態 1 固体の構造	結晶とアモルファス、金属結晶、イオン結晶に関する基本事項について説明や計算ができる。
		2nd	物質の状態 2　分子間力、分子結晶、共有結合の結晶	分子間力、分子結晶、共有結合の結晶に関する基本事項について説明や計算ができる。
		3rd	物質の状態 3　物質の状態変化	粒子の熱運動、物質の三態とエネルギー、気液平衡と蒸気圧に関する基本事項について説明や計算ができる。
		4th	物質の状態4　気体の体積と状態方程式	気体の体積と状態方程式に関する基本事項について説明や計算ができる。
		5th	物質の状態5　混合気体の圧力と実在気体	混合気体の圧力と実在気体に関する基本事項について説明や計算ができる。
		6th	物質の状態 6　溶液、希薄溶液の性質とコロイド溶液	溶解、希薄溶液の性質とコロイド溶液に関する基本事項について説明や計算ができる。
		7th	物質の状態に関する総括	物質の状態に関する問題を解き、説明できる。
		8th	反応速度と平衡 1　化学反応と熱、ヘスの法則	化学反応と熱、ヘスの法則に関する基本事項について説明や計算ができる。
	2nd Quarter	9th	反応速度と平衡 2　化学反応と光	ヘスの法則、化学反応と光に関する基本事項について説明や計算ができる。
		10th	反応速度と平衡 3　電池と電気分解	電池と電気分解に関する基本事項について説明や計算ができる。
		11th	反応速度と平衡 4　化学反応の速さと反応条件、化学反応の仕組み	化学反応の速さと反応条件に関する基本事項について説明や計算ができる。
		12th	反応速度と平衡 5　可逆平衡と化学平衡	可逆平衡、化学平衡に関する基本事項について説明や計算ができる。
		13th	反応速度と平衡 6　平衡状態の変化	平衡状態の変化に関する基本事項について説明や計算ができる。
		14th	反応速度と平衡 7　平衡状態、電解質溶液の化学平衡	平衡状態、電解質溶液の化学平衡に関する基本事項について説明や計算ができる。

		15th	反応速度と平衡 に関する総括	反応速度と平衡に関する問題を解き、説明できる。
		16th	期末試験	

Evaluation Method and Weight (%)

	定期試験	実験・レポート・小テスト・課題等	Total
Subtotal	60	40	100
基礎的能力	60	40	100
専門的能力	0	0	0
分野横断的能力	0	0	0

Akashi College	Year	2024	Course Title	Science Ⅲ -2

Course Information

Course Code	6310	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	「新編化学」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. 周期表をもとに、化学物質の性質を理解し、説明できる。
2. 無機物質の性質、反応を理解し説明できる。
3. 有機物質の構造、官能基を理解し、性質や反応を説明できる。
4. 化学についての基礎知識をもち、安全性や環境問題に配慮できる。

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	物質の状態に関する基本事項について的確な説明や正確な計算が十分にできる。	物質の状態に関する基本事項について説明や計算ができる。	物質の状態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	化学反応に関する基本事項について的確な説明や正確な計算が十分にできる。	化学反応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	無機物質に関する基本事項について的確な説明や正確な計算が十分にできる。	無機物質に関する基本事項について説明や計算ができる。	無機物質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	有機物質に関する基本事項について的確な説明や正確な計算が十分にできる。	有機物質に関する基本事項について説明や計算ができる。	有機物質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、様々な化合物の性質や反応について講義形式で授業を行うものである。化学基礎(サイエンスIIB)で学習した内容をもとに、様々な化学物質の性質や化学反応について学ぶ。化学を通して科学的思考を養う。
Style	平素は講義形式で授業を行い、確認テストを適宜実施する。
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。 CBTについては、日時を振り替えて行うことがある。 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	3rd Quarter	1st	無機物質-1 水素と18族（希ガス）と17族（ハロゲン）	水素や希ガス、ハロゲンの単体や化合物の性質や反応について理解し、説明できる。
		2nd	無機物質-2 16族（酸素と硫黄）	酸素や硫黄の単体や化合物の性質や反応について理解し、説明できる。
		3rd	無機物質-3 15族（窒素、リン）14族（炭素・ケイ素）	窒素、リン、炭素やケイ素の単体や化合物の性質や反応について理解し、説明できる。
		4th	無機物質-4 １族（アルカリ金属)、２族	アルカリ金属、2族元素の単体や化合物の性質や反応について理解し、説明できる。
		5th	無機物質-5 1・2族以外の典型元素（アルミニウム・亜鉛）	アルミニウム、亜鉛、水銀、スズ、鉛の単体の典型元素の単体や化合物の性質や反応について理解し、説明できる。
		6th	無機物質-6 遷移元素（３～11族）と 金属イオンの分離と確認	遷移元素(鉄、銅、銀クロム、マンガン)の単体および化合物の性質や反応について理解し説明できる。
		7th	有機物質-1 有機化合物の特徴と構造決定	有機化合物の特徴および構造式の決定手順を理解し、説明できる。
		8th	有機物質-2 飽和炭化水素（アルカン）、不飽和炭化水素（アルケンとアルキン）	飽和炭化水素、不飽和炭化水素の性質や反応について理解し、説明できる。
	4th Quarter	9th	有機物質-3 アルコールとエーテル	アルコールとエーテルの性質や反応について理解し、説明できる。
		10th	有機物質-4アルデヒドとケトン	アルデヒドとケトンの性質や反応について理解し説明できる。
		11th	有機物質-5 カルボン酸　エステル・油脂・セッケン	カルボン酸、エステルおよび油脂やセッケンの性質や反応について理解し、説明できる。
		12th	有機物質-6 芳香族炭化水素-1	芳香族炭化水素の性質や反応について理解し説明できる、
		13th	有機物質-7 芳香族炭化水素-2	芳香族炭化水素の性質や反応について理解し説明できる。
		14th	有機物質-8 高分子化合物	合成高分子、天然高分子について理解し、説明できる。

		15th	後期まとめ	無機物質、有機物質の性質、反応について説明できる。
		16th	期末試験	

Evaluation Method and Weight (%)

	試験	その他	Total
Subtotal	35	65	100
基礎的能力	35	65	100
専門的能力	0	0	0
分野横断的能力	0	0	0

Akashi College	Year	2024	Course Title	Physical Education III-1

Course Information

Course Code	6311	Course Category	General / Compulsory
Class Format	Skill	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First 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.	Do not participate in classes. Do not strive to improve their health and physical strength. Have a poor 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 improve their skills through games based on the rules, how to play games, and the basic skills they learned in previous years. They are also encouraged to experience the fun of enhancing teamwork while collaborating and cooperating with your team with your leader in the center. Students should take the initiative in creating a safe and welcoming class, and the instructors support their effort.
Notice	・ Wear training wear and athletic shoes. 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 Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Understand the purposes and objectives of this course. Split into teams in each sport and select a leader.
		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 III-2

Course Information

Course Code	6312	Course Category	General / Compulsory
Class Format	Skill	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	ISHIDA Masami,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.	Do not participate in classes. Do not strive to improve their health and physical strength. Have a poor 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 improve their skills through games based on the rules, how to play games, and the basic skills they learned in previous years. They are also encouraged to experience the fun of enhancing teamwork while collaborating and cooperating with your team with your leader in the center. Students should take the initiative in creating a safe and welcoming class, and the instructors support their effort.
Notice	・ Wear training wear and athletic shoes. 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 Softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis, other sports as determined feasible by teachers while ensuring safety, based on requests from students.	Understand the purposes and objectives of this course. Split into teams in each sport and select a leader.
		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 Ⅲ-1

Course Information

Course Code	6313	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	(1) Two Sides to Every Discussion (Seibido), (2) DataBase 5th Edition (Kirihara Shoten), (3) NextStage 4th Edition (Kirihara Shoten		
Instructor	MORIMOTO Nana		

Course Objectives

・ Develop attitudes to try to communicate with others in English and to understand different cultures, and can make use of these attitudes to use English in real life.
・ Can listen to, read, and communicate about daily life and familiar topics with a certain degree of accuracy, fluency, and readiness.
・ Can listen to, read, and communicate about social topics and basic information and ideas regarding their own specialties. Also, can exchange simple opinions on these topics.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Develop attitudes to try to communicate with others in English and to understand different cultures, and can apply these attitudes to use English in real life.	Develop attitudes to try to communicate with others in English and to understand different cultures, and can make use of these attitudes to use English in real life.	Do not develop attitudes to try to communicate with others in English or to understand different cultures, and cannot make use of these attitudes to use English in real life.
Achievement 2	Can listen to, read, and communicate about daily life and familiar topics with accuracy, fluency, and readiness.	Can listen to, read, and communicate about daily life and familiar topics with a certain degree of accuracy, fluency, and readiness.	Cannot listen to, read, and communicate about daily life and familiar topics with a certain degree of accuracy, fluency, and readiness.
Achievement 3	Can listen to, read and communicate and exchange opinions casually about social topics or their own idea and basic information about their specialties. Also, can exchange opinions on these topics.	Can listen to, read, and communicate about social topics and basic information and ideas regarding their own specialties. Also, can exchange simple opinions on these topics.	Cannot listen to, read, and communicate about social topics and basic information and ideas regarding their own specialties. Also, cannot exchange simple opinions on these topics.

Assigned Department Objectives

Teaching Method

Outline	The aim of this course is to raise the levels of individual skills such as listening, grammar, vocabulary, and reading, and to improve students' English skills so that they can express their own opinions.
Style	After a quiz to check the acquisition of vocabulary, there will be a lecture and exercises using textbooks. Students are expected to review the content of the class.
Notice	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	Class summary description	Understand the class schedule
		2nd	Unit 1	Learn the vocabulary and grammar rules set as lesson tasks.
		3rd	Unit 3	Learn the vocabulary and grammar rules set as lesson tasks.
		4th	Exercise	Exercise
		5th	Unit 5	Learn the vocabulary and grammar rules set as lesson tasks.
		6th	Unit 6	Learn the vocabulary and grammar rules set as lesson tasks.
		7th	Exercise	Exercise
		8th	Unit 7	Learn the vocabulary and grammar rules set as lesson tasks.
	2nd Quarter	9th	Unit 10	Learn the vocabulary and grammar rules set as lesson tasks.
		10th	Exercise	Exercise
		11th	Unit 12	Learn the vocabulary and grammar rules set as lesson tasks.
		12th	Unit 13	Learn the vocabulary and grammar rules set as lesson tasks.
		13th	Unit 14	Learn the vocabulary and grammar rules set as lesson tasks.
		14th	Exercise	Exercise
		15th	Review	Review

		16th	Final exam	Test the student understanding of the content learned so far.

Evaluation Method and Weight (%)

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

Akashi College	Year	2024	Course Title	English Ⅲ-2

Course Information

Course Code	6314	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	Welcome to the TOEIC® L&R Test -New Edition-／『データベース4500』（継続）／『NextStage』4th Edition（継続）		
Instructor	MORIMOTO Nana		

Course Objectives

·相手と英語でコミュニケーションを図ろうとする態度や異文化を理解しようとする姿勢を身に付け、実際の場面での英語の使用に役立てることができる。
·日常生活や自分の身近なことについて、ある程度の的確さ、流暢さ、即応性をもって内容を聴解、読解、伝達できる。
·社会性のある話題や自分の専門に関する基本的な情報や考えについて、内容の聴解、読解、伝達に加え、簡単な意見交換ができる。

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	相手と英語でコミュニケーションを図ろうとする態度や異文化を理解しようとする姿勢を身に付け、実際の場面での英語の使用に応用して役立てることができる。	相手と英語でコミュニケーションを図ろうとする態度や異文化を理解しようとする姿勢を身に付け、実際の場面での英語の使用に役立てることができる。	相手と英語でコミュニケーションを図ろうとする態度や異文化を理解しようとする姿勢を身に付け、実際の場面での英語の使用に役立てることができない。
評価項目2	日常生活や自分の身近なことについて、的確さ、流暢さ、即応性をもって内容を聴解、読解、伝達できる。	日常生活や自分の身近なことについて、ある程度の的確さ、流暢さ、即応性をもって内容を聴解、読解、伝達できる。	日常生活や自分の身近なことについて、ある程度の的確さ、流暢さ、即応性をもって内容を聴解、読解、伝達できない。
評価項目3	社会性のある話題や自分の専門に関する基本的な情報や考えについて、内容の聴解、読解、伝達に加え、意見交換ができる。	社会性のある話題や自分の専門に関する基本的な情報や考えについて、内容の聴解、読解、伝達に加え、簡単な意見交換ができる。	社会性のある話題や自分の専門に関する基本的な情報や考えについて、内容の聴解、読解、伝達に加え、簡単な意見交換ができない。

Assigned Department Objectives

Teaching Method

Outline	リスニング、文法、語彙、リーディングなどの個別スキルのレベルアップに加え、TOEICで高得点が狙えるよう英語力の向上を目指す。
Style	単語の習得を確認する小テストの後、教科書を使った講義と演習を行う。授業で行った内容について復習をする。
Notice	毎時間の予習、復習をして授業に臨むこと。小テスト、課題をきちんとこなすこと。 評価の対象としない欠席条件（割合）：1/4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	3rd Quarter	1st	授業概要説明	弱点の克服を目指す。 授業内容や課題について理解する。
		2nd	Unit 1	レッスンの課題として設定されている語彙・文法などを習得する。
		3rd	Unit 2	レッスンの課題として設定されている語彙・文法などを習得する。
		4th	Unit 3	レッスンの課題として設定されている語彙・文法などを習得する。
		5th	Unit 4	レッスンの課題として設定されている語彙・文法などを習得する。
		6th	Unit 5	レッスンの課題として設定されている語彙・文法などを習得する。
		7th	Unit 6	レッスンの課題として設定されている語彙・文法などを習得する。
		8th	中間のまとめ	これまでの学習で理解したことをきちんと成果として表現することができる。
	4th Quarter	9th	Unit 7	レッスンの課題として設定されている語彙・文法などを習得する。
		10th	Unit 8	レッスンの課題として設定されている語彙・文法などを習得する。
		11th	Unit 9	レッスンの課題として設定されている語彙・文法などを習得する。
		12th	Unit 10	レッスンの課題として設定されている語彙・文法などを習得する。
		13th	Unit 11	レッスンの課題として設定されている語彙・文法などを習得する。
		14th	Unit 12	レッスンの課題として設定されている語彙・文法などを習得する。
		15th	後期総復習	後期の学習内容について復習する。

		16th	期末試験	これまでの学習で理解したことをきちんと成果として表現することができる。

Evaluation Method and Weight (%)

	試験	小テスト	相互評価	その他	Total
Subtotal	60	20	0	20	100
基礎的能力	60	20	0	20	100
専門的能力	0	0	0	0	0
分野横断的能力	0	0	0	0	0

Akashi College	Year	2024	Course Title	English Conversation I-1

Course Information

Course Code	6315	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Smart Choice (4th Edition) Student Book 3 with Online Practice, by Ken Wilson and Alice Savage (2020) Oxford University Press, ISBN: 978-0-19-406129-2.		
Instructor	HERBERT John C.		

Course Objectives

1) Read aloud or speak considering the basic rhythms, intonations, and sound connections in phrases and sentences in order to convey one's meaning to a listener.
2) Learn the rules of English pronunciation and accents and use them properly in order to speak clearly and convey one's meaning to a listener.
3) Memorize the vocabulary learned in junior high school. Learn new vocabulary in accordance with the curriculum guidelines for high school and technical English terms required for professional education, and use them properly.
4) Learn grammar and sentence structure in accordance with the curriculum guidelines for high school in addition to the grammar and structure learned in junior high school, and use them properly.
5) Listen to and catch the necessary information from the content spoken in a clear pronunciation at a speed of about 100 words a minute, regarding everyday life and familiar topics.
6) Speak one's opinions and impressions in English using basic terms, regarding everyday life and familiar topics.
7) Make explanations and tell stories at a speed of about 100 words a minute in a manner that conveys one's meaning to a listener.

Rubric

	Mastery Level	Standard Level	Unacceptable Level
Objective 1 (Pronunciation)	Clear pronunciation and natural intonation	Understandable pronunciation and recognizable intonation	Poor pronunciation using only Japanese katakana to try to speak English and flat intonation
Objective 2 (Pronunciation)	Natural accent, stress, and rhythm	Understandable accent, stress, and rhythm	Incomprehensible accent, stress, rhythm
Objective 3 (Vocabulary)	Mastery of all textbook vocabulary	Mastery of most of the textbook vocabulary which the teacher focused on in class lectures	Mastery of only a few of the textbook vocabulary which the teacher focused on in class lectures
Objective 4 (Vocabulary and Syntax)	Mastery of all the grammar from the textbook and from the teacher's lectures	Mastery of most of the grammar from the textbook and from the teacher's lectures	Mastery of only some of the grammar from the textbook and from the teacher's lectures
Objective 5 (English Communication)	Able to maintain a basic conversation fluently	Able to maintain a basic conversation somewhat fluently	Not able to maintain a basic conversation
Objective 6 (English Communication)	Able to express opinions in English clearly	Able to express opinions in English somewhat clearly	Not able to express opinions in English
Objective 7 (English Communication)	Able to explain ideas fluently in English	Able to explain ideas somewhat fluently in English	Not able to explain ideas in English

Assigned Department Objectives

Teaching Method

Outline	This course focuses on English conversation strategies and confidence building. Students will make the English they have learned from previous classes come alive in its spoken form.
Style	This class will spend two weeks on each textbook unit. English practice in the first week will focus on useful vocabulary and grammar for making English conversations about the unit topic. Then, the students will practice making English conversations. The next week will include a short vocabulary and grammar review, followed by listening activities and more English conversation practice. After 3 units have been taught over six weeks, each seventh week will include a speaking test. Written vocabulary and grammar tests will be given as mid-term and end-term exams.
Notice	Active participation in English is essential for completing this course successfully. Students who do not stay focused and those who are more than 10 minutes late for class may be counted absent. 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	Unit 1: Using the present perfect continuous form to talk about hobbies	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		2nd	Unit 1 (continued): Using the present perfect continuous form to talk about hobbies	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		3rd	Unit 2: Using indirect questions to talk about shows and celebrities	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		4th	Unit 2 (continued): Using indirect questions to talk about shows and celebrities	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.

		5th	Unit 3: Using the passive form to express opinions about art	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		6th	Unit 3 (continued): Using the passive form to express opinions about art	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		7th	First Speaking Test	Speak as naturally, confidently, and fluently as possible with the conversation partner of your choice, using vocabulary and grammar from the textbook.
		8th	Mid-term Exam (first written test)	Master the relevant vocabulary and grammar studied up to this point.
	2nd Quarter	9th	Unit 4: Using relative clauses to describe what people are like	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		10th	Unit 4 (continued): Using relative clauses to describe what people are like	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		11th	Unit 5: Using infinitives and gerunds to talk about technology and products	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		12th	Unit 5 (continued): Using infinitives and gerunds to talk about technology and products	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		13th	Unit 6: Using the past perfect form to describe past events	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		14th	Unit 6 (continued): Using the past perfect form to describe past events	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		15th	Second Speaking Test	Speak as naturally, confidently, and fluently as possible with the conversation partner of your choice, using vocabulary and grammar from the textbook.
		16th	End-term Exam (second written test)	Master the relevant vocabulary and grammar studied up to this point.

Evaluation Method and Weight (%)

	Speaking Tests	Written Tests	Online Homework	Total
Subtotal	40	30	30	100
Basic English Communication	40	30	30	100

Akashi College	Year	2024	Course Title	English Conversation I-2

Course Information

Course Code	6316	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	Smart Choice (4th Edition) Student Book 3 with Online Practice, by Ken Wilson and Alice Savage (2020) Oxford University Press, ISBN: 978-0-19-406129-2.		
Instructor	HERBERT John C.		

Course Objectives

1) Read aloud or speak considering the basic rhythms, intonations, and sound connections in phrases and sentences in order to convey one's meaning to a listener.
2) Learn the rules of English pronunciation and accents and use them properly in order to speak clearly and convey one's meaning to a listener.
3) Memorize the vocabulary learned in junior high school. Learn new vocabulary in accordance with the curriculum guidelines for high school and technical English terms required for professional education, and use them properly.
4) Learn grammar and sentence structure in accordance with the curriculum guidelines for high school in addition to the grammar and structure learned in junior high school, and use them properly.
5) Listen to and catch the necessary information from the content spoken in a clear pronunciation at a speed of about 100 words a minute, regarding everyday life and familiar topics.
6) Speak one's opinions and impressions in English using basic terms, regarding everyday life and familiar topics.
7) Make explanations and tell stories at a speed of about 100 words a minute in a manner that conveys one's meaning to a listener.

Rubric

	Mastery Level	Standard Level	Unacceptable Level
Objective 1 (Pronunciation)	Clear pronunciation and natural intonation	Understandable pronunciation and recognizable intonation	Poor pronunciation using only Japanese katakana to try to speak English and flat intonation
Objective 2 (Pronunciation)	Natural accent, stress, and rhythm	Understandable accent, stress, and rhythm	Incomprehensible accent, stress, rhythm
Objective 3 (Vocabulary)	Mastery of all textbook vocabulary	Mastery of most of the textbook vocabulary which the teacher focused on in class lectures	Mastery of only a few of the textbook vocabulary which the teacher focused on in class lectures
Objective 4 (Vocabulary and Syntax)	Mastery of all the grammar from the textbook and from the teacher's lectures	Mastery of most of the grammar from the textbook and from the teacher's lectures	Mastery of only some of the grammar from the textbook and from the teacher's lectures
Objective 5 (English Communication)	Able to maintain a basic conversation fluently	Able to maintain a basic conversation somewhat fluently	Not able to maintain a basic conversation
Objective 6 (English Communication)	Able to express opinions in English clearly	Able to express opinions in English somewhat clearly	Not able to express opinions in English
Objective 7 (English Communication)	Able to explain ideas fluently in English	Able to explain ideas somewhat fluently in English	Not able to explain ideas in English

Assigned Department Objectives

Teaching Method

Outline	This course focuses on English conversation strategies and confidence building. Students will make the English they have learned from previous classes come alive in its spoken form.
Style	This class will spend two weeks on each textbook unit. English practice in the first week will focus on useful vocabulary and grammar for making English conversations about the unit topic. Then, the students will practice making English conversations. The next week will include a short vocabulary and grammar review, followed by listening activities and more English conversation practice. After 3 units have been taught over six weeks, each seventh week will include a speaking test. Written vocabulary and grammar tests will be given as mid-term and end-term exams.
Notice	Active participation in English is essential for completing this course successfully. Students who do not stay focused and those who are more than 10 minutes late for class may be counted absent. 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	Unit 7: Talking about how to "have" or "get" something done	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		2nd	Unit 7 (continued): Talking about how to "have" or "get" something done	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		3rd	Unit 8: Using the second conditional to talk about potential improvements	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		4th	Unit 8 (continued): Using the second conditional to talk about potential improvements	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.

		5th	Unit 9: Using should have and would have to talk about regrets and solutions	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		6th	Unit 9 (cont.): Using should have and would have to talk about regrets and solutions	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		7th	First Speaking Test	Speak as naturally, confidently, and fluently as possible with a random partner and a random topic selected by your teacher.
		8th	Mid-term Exam (first written test)	Master the relevant vocabulary and grammar studied up to this point.
	4th Quarter	9th	Unit 10: Using the perfect forms of may, might, could, and must to speculate	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		10th	Unit 10 (cont.): Using the perfect forms of may, might, could, and must to speculate	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		11th	Unit 11: Using the third conditional to discuss life with and without inventions	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		12th	Unit 11(cont.): Using the third conditional to discuss life with and without inventions	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		13th	Unit 12: Using reported speech to talk about news	Learn enough vocabulary and grammar to speak confidently and fluently about the unit topic in English.
		14th	Unit 12 (continued): Using reported speech to talk about news	Listen to and practice using the appropriate intonation, pronunciation, stress, and rhythm of English to speak more naturally about the unit topic in English.
		15th	Final Speaking Test	Speak as naturally, confidently, and fluently as possible with a random partner and a random topic selected by your teacher.
		16th	End-term Exam (second written test)	Master the relevant vocabulary and grammar studied up to this point.

Evaluation Method and Weight (%)

	Speaking Tests	Written Tests	Online Homework	Total
Subtotal	40	30	30	100
Basic English Communication	40	30	30	100

Akashi College	Year	2024	Course Title	Ｃｏ＋ｗｏｒｋⅡ Ａ

Course Information

Course Code	6317	Course Category	General / Compulsory
Class Format	Seminar	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	『Co+work book～３年間の記録』、Co+work学生ポータルサイト、その他、各チームの活動の内容に応じて適宜担当教員が用意する。		
Instructor	All faculty		

Course Objectives

自律に関する到達目標：自己調整ができる。
協働に関する到達目標：他者を尊重しながらチームで作業ができる。
創造に関する到達目標：課題等を発見し新しい提案ができる。

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
自律に関する到達目標	タイムマネジメントや必要に応じた報告・連絡・相談ができ、目標を立て振り返ることができる。これらを自分なりの判断と工夫を加え最善と思う行動をとる。	タイムマネジメントや必要に応じた報告・連絡・相談ができ、目標を立て振り返ることができる。これらのことをやるべき時に行う。	タイムマネジメントや必要に応じた報告・連絡・相談、目標を立て振り返ることの行動が伴わない。
協働に関する到達目標	他者の意見をしっかりと聞き、他者を受け入れつつ自己表現ができる。また、協働作業に貢献することができる。これらを自分なりの判断と工夫を加え最善と思う行動をとる。	他者の意見をしっかりと聞き、他者を受け入れつつ自己表現ができる。また、協働作業に貢献することができる。これらのことをやるべき時に行う。	他者の意見をしっかりと聞くこと、他者を受け入れつつ自己表現を行う行動が伴わない。また、協働作業に貢献する行動が伴わない。
創造に関する到達目標	記録や収集した情報の意味づけを踏まえ、新しいものやしくみの提案をすることができる。また提案の及ぼす影響や範囲を特定できる。そして、これらを自分なりの判断と工夫を加え最善と思う行動をとる。	新しいものやしくみの提案をすることができる。また提案の及ぼす影響や範囲を特定できる。また、これらのことをやるべき時に行う。	記録や収集した情報の意味づけを踏まえ、新しくものやしくみの提案をすることができない。また提案の及ぼす影響や範囲を特定できない。また、新しい提案をする行動が伴わない。

Assigned Department Objectives

Teaching Method

Outline	本授業は、２、３、４年生、４学科の学生を無作為に選んで構成された数名で編成されたチームで行うPBL型授業である。1人の教員が１チームもしくは２チームを担当する。多様な環境（他学科・他学年の学生との交わり、学外の人々との交わりなど）の中で、自律、協働、創造の能力を養成することを目的とする。受講生は、自らチーム内での役割を考えて行動しチームワーク力を発揮して、メンバーと協働しながら創造的な活動を行うことが求められる。活動テーマは、誰かを幸せにするもの（社会との関わりを持つ）、チームにとってのチャレンジを含むもの、SDGs（持続可能な開発目標）の17の目標につながるものとする。
Style	ルーブリックを参照しながら、各自で自己目標を立てる。そしてチーム内で自己紹介、アイスブレイクを通じてチーム内の人間関係を構築する。次にチームで、SDGs（持続可能な開発目標）の17の目標の目標の細分化項目の調査や把握を通じて、その理解を深める。それから話し合いを通じて、SDGsの目標につながるチームの活動テーマを確定し、活動計画書を作成する。第7週の計画発表会・意見交換会にてチームの活動テーマについて、プレゼンテーションを行い、他のチームの担当教員や学生からの助言を受ける。助言を受け、適宜チームで計画の修正を行う。その後はチームで協力、役割分担をしながら計画的に、提案やプロトタイプの作成、実践活動などを進める。毎週、授業の終わりにチームでふりかえりを行いチーム活動報告書を記入し担当教員に提出する。必要に応じて修正を加えながら次回の目標を立てる。前期終了時には、担当教員と個別に自己評価や相互評価を踏まえたふりかえりを行う。
Notice	（１）個人の取り組み 60%（自律（40%）＋協働（40%）＋創造（20%）） （２）チームの取り組み20%（協働（50%）＋創造（50%）） （３）成果 20%（協働（50%）＋創造（50%）） 上記 （１）は、ルーブリックを用いた学生の自己評価、相互評価と教員の評価をもとに、チームの担当教員が評価を行う。（２）（３）は計画発表会での複数の教員などによる評価とする。60点以上を合格とする。 評価の対象としない欠席条件(割合) 1/4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	オリエンテーション 授業ガイダンス、チームビルディング 授業ガイダンスを受け、全体スケジュール、活動に関する諸注意、評価方法等を確認する。担当教員とチームメンバーの顔合わせ、チームビルディングを行う。	この授業の目的や進め方を理解する
		2nd	活動目標の決定および活動内容の計画、自己目標を各自で定めて記録する。チーム活動に向け、テーマに沿ってアイデアを出し議論をする。 決定した活動目標に沿って、実施方法、役割分担、スケジュール等を決定し活動計画書にまとめる。	自律、協働、創造の能力を身に付ける
		3rd	活動目標の決定および活動内容の計画 チーム活動の目標決定に向け、テーマに沿ってアイデアを出し議論をする。決定した活動目標に沿って、方法、役割分担、スケジュール等を決定し活動計画書にまとめる。完成後は活動を開始する。	自律、協働、創造の能力を身に付ける

		4th	活動目標の決定および活動内容の計画 チーム活動の目標決定に向け、テーマに沿ってアイデアを出し議論をする。決定した活動目標に沿って、方法、役割分担、スケジュール等を決定し活動計画書にまとめる。完成後は活動を開始する。	自律、協働、創造の能力を身に付ける
		5th	活動目標の決定および活動内容の計画 チーム活動の目標決定に向け、テーマに沿ってアイデアを出し議論をする。決定した活動目標に沿って、方法、役割分担、スケジュール等を決定し活動計画書にまとめる。活動計画書を提出する。	自律、協働、創造の能力を身に付ける
		6th	チーム活動 活動計画書に従ってチームで活動を行う。計画発表会＆意見交換会の準備を行う。	自律、協働、創造の能力を身に付ける
		7th	計画発表会＆意見交換会 活動内容を共有するためにチームの活動について報告を行う。他のチームの報告を聞き、意見交換を行う。	チームの活動を簡潔に伝えることができる 他のチームの活動を共有し評価し、意見を伝えることができる
		8th	計画の見直し・チーム活動 計画発表会＆意見交換会を踏まえ、計画の見直しを行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。	自律、協働、創造の能力を身に付ける
	2nd Quarter	9th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。	自律、協働、創造の能力を身に付ける
		10th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。中間報告会の準備を行う。	自律、協働、創造の能力を身に付ける
		11th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。中間報告会の準備を行う。	自律、協働、創造の能力を身に付ける
		12th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。中間報告会の準備を行う。	自律、協働、創造の能力を身に付ける
		13th	チーム活動 活動計画書に従ってチームで活動を行う。スケジュールの遅延や実施方法の不備等が明らかになった場合、活動計画の修正・変更を行う。	自律、協働、創造の能力を身に付ける
		14th	これまでの活動のふりかえり 前期の振り返りを行うと共にこれまでのチーム活動を省み、今後の活動計画を確認する。各自の行動を省みて、自律、協働、創造に関して目標達成した点や反省点を自己および相互に記録する。自己および相互の行動の記録をもとにチーム担当教員より個別にフィードバックを受ける。	チームや自身の行動を客観的にふりかえることができる
		15th	これまでの活動のふりかえり 前期の振り返りを行うと共にこれまでのチーム活動を省み、今後の活動計画を確認する。各自の行動を省みて、自律、協働、創造に関して目標達成した点や反省点を自己および相互に記録する。自己および相互の行動の記録をもとにチーム担当教員より個別にフィードバックを受ける。	チームや自身の行動を客観的にふりかえることができる
		16th	期末試験　実施せず	

Evaluation Method and Weight (%)

	個人評価（プロセス評価）（自律）	個人評価（プロセス評価）（協働）	個人評価（プロセス評価）（創造）	チーム評価（成果物、報告会）（協働）	チーム評価（成果物、報告会）（創造）	Total
Subtotal	24	24	12	20	20	100
基礎的能力	0	0	0	0	0	0
専門的能力	0	0	0	0	0	0
分野横断的能力	24	24	12	20	20	100

Akashi College	Year	2024	Course Title	Ｃｏ＋ｗｏｒｋⅡＢ

Course Information

Course Code	6318	Course Category	General / Compulsory
Class Format	Seminar	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
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 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 Ⅱ

Course Information

Course Code	6319	Course Category	General / Elective
Class Format	その他	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
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 Information Security Management Examination.	Not pass the Information Security Management Examination 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://www.ipa.go.jp/shiken/kubun/sg.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 Ⅱ

Course Information

Course Code	6320	Course Category	General / Elective
Class Format	その他	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
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 pre-1.	Practical Mathematics Proficiency Test: Pass Level pre-1.	Practical Mathematics Proficiency Test: Fail to pass Level pre-1.

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 ~3nd 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	Overseas Training Ⅰ

Course Information

Course Code	6321	Course Category	General / Elective
Class Format	Practical training	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Year-round	Classes per Week	1
Textbook and/or Teaching Materials			
Instructor	All faculty of the department		

Course Objectives

Objectives of this training are as follows:
(1) Can think of things from various perspectives through a variety of training experiences abroad.
(2) Can communicate through a variety of training experiences overseas.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can think of things very well from various perspectives through a variety of training experiences abroad.	Can think of things from various perspectives through a variety of training experiences abroad.	Cannot think of things through various perspectives through a variety of training experiences abroad.
Achievement 2	Can communicate very well through a variety of training experiences overseas.	Can communicate through a variety of training experiences overseas.	Cannot communicate through a variety of training experiences overseas.

Assigned Department Objectives

Teaching Method

Outline	The objectives of this course are to develop the ability to think things from various perspectives and to communicate through a variety of training experiences overseas. The training can be carried out during summer vacation, etc. The number of days for the training must be more than five days.
Style	On-site training and debriefing session
Notice	Students are required to keep in close contact with their class teacher or supervisor. During the training, students are required to actively engage and communicate with the local people and act appropriately as a trainee, including their clothing and language. No conditions for missing classes that 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		
		2nd		
		3rd		
		4th		
		5th		
		6th		
		7th		
		8th		
	2nd Quarter	9th		
		10th		
		11th		
		12th		
		13th		
		14th		
		15th		
		16th	No final exam	
2nd Semester	3rd Quarter	1st		
		2nd		
		3rd		
		4th		
		5th		
		6th		
		7th		
		8th		
	4th Quarter	9th		
		10th		
		11th		
		12th		

		13th		
		14th		
		15th		
		16th	No final exam	

Evaluation Method and Weight (%)

	Report	Presentation	Total
Subtotal	50	50	100
Basic Proficiency	0	0	0
Specialized Proficiency	0	0	0
Cross Area Proficiency	50	50	100

Akashi College	Year	2024	Course Title	Japanese Ⅲ-1

Course Information

Course Code	6322	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	4
Textbook and/or Teaching Materials	Japanese for International College/Grauduate Students -reading essays-, ALC / Japanese for International College/Grauduate Students -kanji and vocaburally-, ALC / Natural Science Japanese for International Students by Kazuo Hosoi, 3A Corporation / Short Essays in 12 Steps by Etsuko Tomomatsu, 3A Corporation		
Instructor	KUBOTA Ikumi		

Course Objectives

1. Can learn about linguistic competence and writing structure to read reports or essays and reading comprehension to read texts in their specialized field by oneself .
2. Can create detailed texts on a wide range of topics and explain your own perspective.
3. Can communicate fluently and naturally, and you can use words according to the other person and the situation.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can read the text to understand the content and explain the content in your own words.	Understand the contents by reading the text, and explain the contents by using the words in the text as they are.	Cannot read the text and can hardly explain the content.
Achievement 2	Can write texts in a detailed and clear structure. Can tell your perspective on a topic.	If there are any hints or advice, can write texts in a detailed and clear structure. and also can tell your perspective on a topic.	Cannot write texts in a detailed and clear structure. Cannot tell your perspective on a topic.
Achievement 3	Can communicate fluently and naturally on various topics. In addition, can use words according to the other party and the situation.	There are some unnatural parts, but can communicate fluently to some extent.	Cannot communicate fluently and naturally on various topics. Cannot use words according to the other party and the situation.

Assigned Department Objectives

Teaching Method

Outline	The students have already acquired language knowledge and skills through a wide range of topics. The purpose of this class is to comprehensively improve students' Japanese proficiency through various reading materials, which is more specialized. At the same time, we aim to be able to convey opinions and suggestions on highly specialized topics, focusing on the practice of communicating one's perspective to others.
Style	The teacher will use textbooks and make and distribute the handout.
Notice	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	Cross-cultural adaptation	Understand the experience of transitioning to a different culture. Can discover expressions unique to written language.
		3rd	Cross-cultural adaptation	Can read texts with an awareness of the central sentences and supporting sentences of each paragraph. Can share with others the thoughts they have been feeling since starting KOSEN life.
		4th	Natural Science Japanese 1	Can read the necessary information from the text about chemistry.
		5th	Natural Science Japanese 2	Understand the meaning of the words and how to use expressions related to chemistry.
		6th	Natural Science Japanese 2	Can talk about what you learned from the content of the text.
		7th	Impulse-buying	Understand the content of the text by comparing it with your own experience.
		8th	Reflection	Can explain new things you found out in class, how your mind have changed, and how your Japanese abilities and skills have developed.
	2nd Quarter	9th	Natural Science Japanese 4	Understand the meaning of the words and how to use expressions related to engineering.
		10th	Natural Science Japanese 4	Can share your thoughts and discuss the contents of the 9th week with others.
		11th	Educational issues	Learn about topics that are problematic in Japanese schools and be able to understand the content.
		12th	Food and Japanese	Understand onomatopoeia that expresses texture. Can discover onomatopoeias used in daily life and understand their meaning.

		13th	Food and Japanese	Understand the sentence structure of an essay. Can use directive expressions appropriately.
		14th	Japanese society through food	Can read columns on food and education issues, food and gender, understand the content, and share their own opinions on the topics within the group.
		15th	Japanese society through food	Can explain researched information and their own opinions trrough compareing some cases in their own countries.
		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 Ⅲ-2

Course Information

Course Code	6323	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	Japanese for International College/Grauduate Students -reading essays-, ALC / Japanese for International College/Grauduate Students -kanji and vocaburally-, ALC / Natural Science Japanese for International Students by Kazuo Hosoi, 3A Corporation / Short Essays in 12 Steps by Etsuko Tomomatsu, 3A Corporation		
Instructor	KUBOTA Ikumi		

Course Objectives

1. Can learn about linguistic competence and writing structure to read reports or essays and reading comprehension to read texts in their specialized field by oneself .
2. Can create detailed texts on a wide range of topics and explain your own perspective.
3. Can communicate fluently and naturally, and you can use words according to the other person and the situation.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can read the text to understand the content and explain the content in your own words.	Understand the contents by reading the text, and explain the contents by using the words in the text as they are.	Cannot read the text and can hardly explain the content.
Achievement 2	Can write texts in a detailed and clear structure. Can tell your perspective on a topic.	If there are any hints or advice, can write texts in a detailed and clear structure. and also can tell your perspective on a topic.	Cannot write texts in a detailed and clear structure. Cannot tell your perspective on a topic.
Achievement 3	Can communicate fluently and naturally on various topics. In addition, can use words according to the other party and the situation.	There are some unnatural parts, but can communicate fluently to some extent.	Cannot communicate fluently and naturally on various topics. Cannot use words according to the other party and the situation.

Assigned Department Objectives

Teaching Method

Outline	The students have already acquired language knowledge and skills through a wide range of topics. The purpose of this class is to comprehensively improve students' Japanese proficiency through various reading materials, which is more specialized. At the same time, we aim to be able to convey opinions and suggestions on highly specialized topics, focusing on the practice of communicating one's perspective to others.
Style	The teacher will use textbooks and make and distribute the handout.
Notice	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	Changes in society	Understand the relationship between changes in society and labor issues.
		2nd	Changes in society	Can research the labor issues facing your country, share the information with others, and exchange opinions.
		3rd	Natural Science Japanese 6	Can grasp the contents of the text from various angles and search for related or developed contents that you are interested in.
		4th	Natural Science Japanese 6	Can explain the characteristics of something clearly while comparing the contents of the 3th week with others.
		5th	Idiom	Understand Japanese idioms and compare them with similar idioms in your language to discover the differences between the two languages.
		6th	Proverb	Understand the meanings and situations in which proverbs are used frequently in daily life.
		7th	Proverb	Can create a skit that express the message learned from a proverb and express it physically.
		8th	Reflection	Can explain new things you found out in class, how your mind have changed, and how your Japanese abilities and skills have developed.
	4th Quarter	9th	Tap water	Understand technological developments and people's awareness related to the topic.
		10th	Tap water	Can use effective grammatical expressions when expressing opinions.
		11th	Natural Science Japanese 10	Can read the meaning of the text about space science.
		12th	Natural Science Japanese 10	Can get the information you need by reading articles on topics covered in the text.

		13th	Earthquakes and disaster prevention	Can explain what you thought about earthquakes which occurred recentry and what actions you should be careful about.
		14th	Language use and social change	Understand the background behind the creation of teen slangs and changes in people's values.
		15th	Language use and social change	Can pick up a teen slangs you're interested in and share information. Can think about the background behind the birth of these words and changes in people's values.
		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 Ⅱ

Course Information

Course Code	6324	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	The teacher will make and distribute the handout. (Teaching materials: 浜田麻里ほか著『大学生と留学生のための論文ワークブック』（くろしお出版）、The Way to Become an Advanced Speaker of Japanese Techniques and Expressions for Effective Communication by Chikako Ogiwara)		
Instructor	KUBOTA Ikumi		

Course Objectives

1. Can write logical sentences on familiar topics, and speak in clear structure and appropriate Japanese.
2. Can review your Japanese ability and way of thinking by sharing ideas and exchanging opinions with your classmates.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can write sentences logically. Can speak in clear structure and appropriate Japanese.	Can write sentences logically. If there is advance preparation, can speak in clear structure and appropriate Japanese.	Cannot write sentences logically. Cannot speak in clear structure and appropriate Japanese.
Achievement 2	Can participate in activities with your classmates and not only review your Japanese and ideas, but also give comments and advice to the other person.	Can participate in activities with classmates and review your Japanese and ideas.	Cannot participate much in activities with classmates. Can participate, but cannot review your Japanese or your thoughts.

Assigned Department Objectives

Teaching Method

Outline	The purpose of this class is to develop the Japanese ability to write and speak logically through various communication activities.
Style	We will engage in various communication activities in a joint class with JapaneseⅣ. We hope that the students will improve their Japanese and thinking skills through the various activities.
Notice	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	Sentence structure	Understand how to compose a paper to make it easy to understand.
		3rd	Sentence type	Understand the characteristics of each sentence that states facts, opinions, and action.
		4th	INTRODUCTION	Can read the paper and notice the structure of the introduction and characteristic Japanese expressions.
		5th	INTRODUCTION	Understand how to explain the background of the paper and can write about a given theme.
		6th	INTRODUCTION	Can find the problem from a reading material. Can also show a plan of how to solve the problem.
		7th	BODY	Understand the difference between facts and opinions and write them separately.
		8th	BODY	Can explain facts by using objective expressions.
	4th Quarter	9th	BODY	Can write a body of the paper.
		10th	BODY	Can write an opinion logically.
		11th	BODY	Can read sentences written by classmates, notice good points and the points which need improvement, and comment on them.
		12th	CONCLUSION	Understand how to write a summary of the paper. Can add an evaluation to the paper, and also can write the prospects for the future that can be considered from the conclusion.
		13th	Present reasons and arguments	Can list issues in your daily life and summarize opinions and proposals for a more fulfilling life.
		14th	Present reasons and arguments	Can explain your opinions and suggestions to others, and also can think about how to effectively convey a variety of opinions and suggestions in groups and summarize them.
		15th	Present reasons and arguments	Can convey opinions and suggestions summarized through activities in the 13th and 14th weeks to others, and also can state your own ideas in response to the opinions and suggestions of others.

		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	10	20	100
Basic Proficiency	20	10	0	30
Specialized Proficiency	20	0	0	20
Cross Area Proficiency	30	0	20	50

Akashi College	Year	2024	Course Title	Electromagnetics I

Course Information

Course Code	6325	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	教科書）岩田　真著、「電磁気学」森北出版 演習書）松森徳衛編著、「エレクトロニクスのための電磁気学例題演習」コロナ社		
Instructor	OHMUKAI Masato		

Course Objectives

評価項目１　静電界における電荷、電界、電位等を説明でき、それらを計算できる。
評価項目２　ガウスの定理、ポアソン方程式、電気双極子を説明でき、それらを用いて電界を計算できる。
評価項目３　導体、誘電体、電束密度を説明でき、電束密度を計算できる。
評価項目４　静電容量及び誘導係数、容量係数を説明でき、それらを計算できる。
評価項目５　仮想変位の法および電気影像法を説明でき、これらを用いた計算ができる。
評価項目６　電流の定義を説明でき、電流を3種類の方法で計算できる。

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	静電界における電荷、電界、電位等を説明でき、それらの応用計算ができる。	静電界における電荷、電界、電位等を説明でき、それらを計算できる。	静電界における電荷、電界、電位等を説明できず、それらを計算できない。
評価項目2	ガウスの定理、ポアソン方程式、電気双極子を説明でき、各種法則を用いて電場の応用計算ができる。	ガウスの定理、ポアソン方程式、電気双極子を説明でき、各種法則を用いて電場の計算ができる。	ガウスの定理、ポアソン方程式、電気双極子を説明できず、各種法則を用いて電場の計算ができない。
評価項目3	導体、誘電体、電束密度を説明でき、電束密度の応用計算ができる。	導体、誘電体、電束密度を説明でき、電束密度の計算ができる。	導体、誘電体、電束密度を説明できず、電束密度の計算ができない。
評価項目4	静電容量及び誘導係数、容量係数を説明でき、それらの応用計算ができる。	静電容量及び誘導係数、容量係数を説明でき、それらの計算ができる。	静電容量及び誘導係数、容量係数を説明できず、それらの計算ができない。
評価項目５	仮想変位の法および電気影像法を説明でき、これらを用いた応用計算ができる。	仮想変位の法および電気影像法を説明でき、これらを用いた計算ができる。	仮想変位の法および電気影像法を説明できず、これらを用いた計算ができない。
評価項目６	電流の定義を説明でき、電流を3種類の方法で応用計算ができる。	電流の定義を説明でき、電流を3種類の方法で計算できる。	電流の定義を説明できず、電流を3種類の方法で計算できない。

Assigned Department Objectives

Teaching Method

Outline	電気回路IIと並んで非常に重要で、電気電子分野の基礎である電気磁気学のうち静電気学に関する部分を学ぶ。予習復習のための課題が課せられる。
Style	講義形式により重要な概念の解説を行い、より深く理解するために、周囲とのコミュニケーションを交えた自習をおこなう。最後には小テストを行い理解度チェックを実施する。宿題は自力で調べながら学習するもので、試験範囲にも入る。
Notice	本科目は，授業で保証する学習時間と，予習・復習及び宿題作成に必要な標準的な自己学習時間の総計が，90時間に相当する学習内容である。毎回出される宿題は必ず期限までに提出すること。評価の対象としない欠席条件（割合）>1/3以上

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	電荷とクーロンの法則と電界	電荷とクーロンの法則と電界の概念を理解し、電界を計算することができる。
		2nd	電気力線と電位	電気力線と電位の概念を理解し、電界と電位の関係式を示すことができる。
		3rd	ガウスの法則の積分形と微分形	ガウスの法則の積分形の概念を理解し微分形を導出できる。また電界の発散を計算できる。
		4th	ラプラス及びポアソンの方程式	ポアソンの方程式とラプラスの方程式の概念を理解して記述することができる。導体に関連してガウスの法則から電位を求めることができる。
		5th	確認テスト	６０点以上を取ることができる。
		6th	電気双極子と電気二重層	電気双極子における電位の計算ができる。
		7th	コンデンサと静電容量	コンデンサの静電容量の性質について理解し、電荷、静電容量、電圧を用いた計算ができるようになる。
		8th	分極現象と誘電率、電束密度	分極した誘電体中の電界について理解し、誘電率と電束密度の概念を理解する。
	4th Quarter	9th	境界条件とコンデンサの静電容量	誘電体の境界における条件を知り、複数種類の誘電体を用いたコンデンサの静電容量を計算できる。
		10th	確認テスト	60点以上取ることができる。
		11th	静電エネルギー	静電エネルギーの概念を理解し、計算できる。
		12th	仮想変位の考え方	仮想変位の考え方を用いてコンデンサにおける力の計算ができる。

		13th	鏡像法	鏡像法によって電荷にかかる力と導体における電荷密度を計算できる。
		14th	電流	電流の基礎概念を理解する。
		15th	確認テスト	６０点以上を取ることができる。
		16th		

Evaluation Method and Weight (%)

	試験	平常点	Total
Subtotal	50	50	100
基礎的能力	0	0	0
専門的能力	50	50	100
分野横断的能力	0	0	0

Akashi College	Year	2024	Course Title	Circuit Theory A

Course Information

Course Code	6326	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Although textbooks are not used, it is recommended to bring a reference book on electric circuits. In addition, materials will be distributed as necessary.		
Instructor	HOSOKAWA Atsuishi		

Course Objectives

1) Understand and can use various theorems related to circuit analysis to analyze AC circuits.
2) Understand resonant circuits and mutual inductance circuits and can analyze them.
3) Understand reactance one-port circuits and can design the Foster circuit and Cauer circuit.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand and can use various theorems related to circuit analysis to analyze various AC circuits.	Understand and can use various theorems related to circuit analysis to analyze AC circuits.	Do not understand various theorems related to circuit analysis.
Achievement 2	Can analyze various resonant circuits and mutual inductance circuits.	Understand resonant circuits and mutual inductance circuits and can analyze them.	Do not understand resonant circuits and mutual inductance circuits.
Achievement 3	Understand reactance one-port circuits and can design the Foster circuit and Cauer circuit.	Understand reactance one-port circuits and can design the Foster circuit and Cauer circuit.	Do not understand reactance one-port circuits.

Assigned Department Objectives

Teaching Method

Outline	Following Electric Circuits II in the second year, the aim of this course is to make sure students thoroughly master the basics of electrical circuits through lectures and problem exercises. The course is also intended to make sure students learn the basic ways of thinking as an electrical and electronics technician.
Style	The class will be carried out using slides and explaining the content. Students will do exercises every two or three classes, and in the week when they do not, they will be given a report assignment to improve their understanding.
Notice	Students should review after the weekly lessons, and ask questions during the next class. Also, they should solve a lot of exercise problems. Students who miss 1/4 or more of classes will not be eligible for a grade 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	AC circuits	Can analyze ACs circuit using the vector notation.
		2nd	Loop analysis and nodal analysis	Can analyze circuits using the loop analysis and nodal analysis.
		3rd	Phasor diagrams	Can draw phasor diagrams for impedance and admittance.
		4th	Problem exercise	Understand the content of weeks 1 to 3 of the first semester, and can analyze AC circuits and draw phasor diagrams.
		5th	Superposition theorem, Millman's theorem, compensation theorem	Can use the superposition theorem, Millman's theorem, compensation theorem, etc. to analyze circuits.
		6th	Thévenin's theorem and Norton's theorem	Can use the Thévenin's theorem and Norton's theorem to analyze circuits.
		7th	Problem exercise	Understand the content of weeks 5 and 6 of the first semester, and can analyze AC circuits using various theorems.
		8th	Midterm exam	Understand the content of weeks 1 to 7 of the first semester, and can analyze various AC circuits.
	2nd Quarter	9th	Resonant circuits	Understand the resonance phenomena and series and parallel resonant circuits.
		10th	Mutual inductance circuits	Understand the coupling of circuits using mutual inductance and mutual inductance circuits.
		11th	Problem exercise	Understand the content of weeks 9 and 10 of the first semester, and can analyze resonant circuits and mutual inductance circuits.
		12th	Reactance one-port circuits	Understand reactance one-port circuits composed of inductance and capacitance.
		13th	Foster circuits	Can design a Foster circuit composed of resonant circuits.

		14th	Cauer circuits	Can design a Cauer circuit composed of ladder circuits.
		15th	Problem exercise	Understand the content of weeks 12 to 14 of the first semester, and can analyze reactance circuits.
		16th	Final exam	Understand the content of weeks 9 and 15 of the first semester, and can analyze resonant circuits, mutual inductance circuits, and reactance one-port circuits.

Evaluation Method and Weight (%)

	Examination	Exercise and Task	Total
Subtotal	70	30	100
Basic Proficiency	0	0	0
Specialized Proficiency	70	30	100
Cross Area Proficiency	0	0	0

Akashi College	Year	2024	Course Title	Circuit Theory B

Course Information

Course Code	6327	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	SUYAMA Taikei		

Course Objectives

1) Can calculate the parameters for a four-terminal network.
2) Understand the Bartlett's bisection theorem and bridge T circuits and can find them.
3) Understand the definition of filters and various constant K filters and can find them.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can calculate the parameters for a four-terminal network.	Can use the parameters for a four-terminal network.	Cannot use the parameters for a four-terminal network.
Achievement 2	Understand the Bartlett's bisection theorem and bridge T circuits and can design them.	Understand the Bartlett's bisection theorem and bridge T circuits and can use them.	Do not understand the Bartlett's bisection theorem and bridge T circuits.
Achievement 3	Understand the definition of filters and various constant K filters and can design them.	Understand the definition of filters and various constant K filters and can use them.	Do not understand the definition of filters and various constant K filters.

Assigned Department Objectives

Teaching Method

Outline	Following Electric Circuits II in the second year, the aim of this course is to make sure students thoroughly master the basics of electrical circuits through lectures and problem exercises. The course is also intended to make sure students learn the basic ways of thinking as an electrical and electronics technician. The first semester will be taught by Hosokawa, and second semester by Suyama.
Style	The class will be carried out by the instructor writing notes on the blackboard and explaining the content. In the first semester, students will do exercises every two or three classes, and in the week when they do not, they will be given a report assignment to improve their understanding. In the second semester, there will be two problem exercises on the class content of the first half of the semester and the second half to deepen their understanding of the content of the lessons.
Notice	Students should review after the weekly lessons, and ask questions during the next class. Also, they should solve a lot of exercise problems. 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	Introduction of a four-terminal network, impedance parameters, and admittance parameters	Understand the definition of a four-terminal network, and find the impedance parameters and admittance parameters.
		2nd	Four-terminal constants	Can find a four-terminal constant.
		3rd	H parameters and G parameters	Can find the H parameters and G parameters.
		4th	Shadow parameters	Can find the shadow parameters.
		5th	Various connections of a four-terminal network	Can find various connections of a four-terminal network.
		6th	Basic four-terminal circuits and bridge T circuits	Understand basic four-terminal circuits and bridge T circuits and can find them.
		7th	Problem exercise	Understand the content of weeks 1 to 6, and can find the four-terminal network parameters
		8th	Bartlett's bisection theorem	Understand the Bartlett's bisection theorem and can find it.
	4th Quarter	9th	Reactance four-terminal networks	Understand the reactance four-terminal networks.
		10th	Definition of filters and constant K filters	Understand the definition of filters and constant k filters and can design them.
		11th	Constant K low pass filters	Understand and can design constant K low pass filters.
		12th	Constant K high pass filters and SPIECE	Understand and can design constant K high pass filters and SPIECE.
		13th	Constant K band pass filters	Understand and can design constant K band pass filters.
		14th	Problem exercise	Understand the content of weeks 9 to 14, and can analyze/design the Bartlett's bisection theorem, reactance four-terminal networks, and filters.
		15th	Total review	Total review
		16th	Final exam	Final exam

Evaluation Method and Weight (%)		
	Examination（prophase）100%	Total
Subtotal	100	100
Basic Proficiency	20	20
Specialized Proficiency	80	80
Cross Area Proficiency	0	0

Akashi College	Year	2024	Course Title	Introduction to Electrical Engineering

Course Information

Course Code	6328	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	HIROTA Atsushi		

Course Objectives

1) Ensure understanding of electrical and electronic circuits through review
2) Understand the outline of power generation to power consumption
3) Understand the basics of power conversion circuits

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can fully ensure understanding of electrical and electronic circuits through review.	Can ensure understanding of electrical and electronic circuits through review.	Cannot ensure understanding of electrical and electronic circuits through review.
Achievement 2	Fully understand the power generation to power consumption outline.	Can understand the power generation to power consumption outline.	Do not understand the power generation to power consumption outline.
Achievement 3	Fully understand the basics of power conversion circuits.	Can understand the basics of power conversion circuits.	Do not understand the basics of power conversion circuits.

Assigned Department Objectives

Teaching Method

Outline	The course will review the electrical subjects learned so far and give introduction for future professional courses. Explanations and introductions of related fields may be made as necessary.
Style	The classes will mainly be conducted as lectures.
Notice	Self-study, including pre-study and review is essential for the course, and all assignments are required to be submitted. Makeup exams, etc. may be held for students with outstanding efforts on a daily basis. This course's content will amount to 90 hours of study in total. These hours include class hours, and the standard self-study time required for pre-study / review, and completing assignments. 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	DC circuits (1)	Can solve basic practice questions of a DC circuit.
		2nd	DC circuits (2)	Can solve practice questions of a DC circuit.
		3rd	DC circuits (3)	Can solve practice questions of a DC circuit using directed method.
		4th	AC circuits (1)	Can solve basic practice questions on an AC circuit.
		5th	AC circuits (2)	Can solve practice questions on an AC circuit.
		6th	AC circuits (3)	Understand three-phase interaction.
		7th	Resonant circuits	Understand resonance phenomena.
		8th	Review	Understand the contents of the first half through exams or exercises
	2nd Quarter	9th	Electrical equipment (1)	Understand the basics of transformers.
		10th	Electrical equipment (2)	Understand the basics of inducers and synchronizer.
		11th	Semiconductor devices	Understand the basic characteristics of semiconductor switch elements.
		12th	Power conversion circuits (1)	Understand the basic power conversion circuitry.
		13th	Power conversion circuits (2)	Understand the characteristics of basic power conversion circuits.
		14th	Electric Power	Understand the basics of substations and the basics of power systems.
		15th	Summary	Can summarize and organize what they have learned.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Exercise, Report	Mutual Evaluations between students	Efforts	Portfolio	Other	Total
Subtotal	40	40	0	20	0	0	100

Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	40	40	0	20	0	0	100
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Introduction to Computer Engineering

Course Information

Course Code	6329	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	TSUCHIDA Takayuki		

Course Objectives

1) Understand the concept of protocol layering in information and communication networks. Understand basic and standard technologies and can put them into practice.
2) Understand threats people encounter in engineering and daily activities specific to the information society and the countermeasures against them.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Fully understand the concept of hierarchy, and practice basic and standard techniques regarding the communication networks.	Understand the concept of hierarchy, and practice basic and standard techniques regarding the communication networks.	Cannot understand the concept of hierarchy, and practice basic and standard techniques regarding the communication networks.
Achievement 2	Fully understand the concept of digital images, fully understand basic image processing technology, and practice it.	Understand the concept of digital images, understand basic image processing technology, and practice it.	Cannot understand the concept of digital images, cannot understand basic image processing technology, and practice it.

Assigned Department Objectives

Teaching Method

Outline	Lectures will be given on networks and security, which are important positions in information engineering among various fields of information engineering. The lectures will be conducted by a teacher who engaged in the research and development of middleware (database) at Hitachi, Ltd. Research & Development Headquarters for five years.
Style	Classes will be held in a lecture style. Exercises will be given to deepen understanding.
Notice	This course will provide the basics of advanced information-based subjects, therefore students must work it on actively. This course's content will amount to 90 hours of study in total. These hours include the learning time guaranteed in classes and the standard self-study time required for pre-study / review. 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, Internet history, OSI Basic Reference Model and TCP/IP	Can explain the OSI Basic Reference Model.
		2nd	Network Interface Layer (Data Link), and LAN	Can explain the Network Interface Layer (Data Link), and LAN
		3rd	Internet Layer (Network), and IPv4/v6	Can explain the Internet Layer (Network), and IPv4/v6
		4th	L3 Routing	Can explain the L3 Routing
		5th	L4 Transport Layer, and TCP/UDP	Can explain the L4 Transport Layer, and TCP/UDP
		6th	L7 Application Layer	Can explain the L7 Application Layer
		7th	Explanation of the midterm exam, information security(concept)	Can explain the concept of information security. Can explain the major threats to information security.
		8th	Midterm exam.	Midterm exam.
	4th Quarter	9th	Cryptography (1)	Can explain the history of cryptography and current ciphers.
		10th	Cryptography (2)	Can explain digital signatures, PKI, SSL, etc. as applications using cryptography and hash functions.
		11th	Deep learning(1)	Can explain the basic concept of deep learning.
		12th	Deep learning(2)	Can explain the concept of deep learning.
		13th	Deep learning(3)	Learn about implementing deep learning through the use of sample codes
		14th	Machine learning(1)	Can explain the basic concept of machine learning.
		15th	Machine learning(2)	Can explain the concept of machine learning.
		16th	Final exam.	Final exam.

Evaluation Method and Weight (%)

	Examination	Little test	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	80	0	0	0	20	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	80	0	0	0	20	0	100
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Digital Circuits A

Course Information

Course Code	6330	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Keitaro Hori:「Zukai Ronrikairo Nyuumon」, Morikita-Shuppan		
Instructor	HOSOKAWA Atsuishi		

Course Objectives

(1) Understand the basic matters of logic circuits.
(2) Understand combination circuits.
(3) Understand basic of sequential circuits.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Fully understand the basic matters of logic circuits.	Understand the basic matters of logic circuits.	Do not understand the basic matters of logic circuits.
Achievement 2	Fully understand combination circuits.	Understand combination circuits.	Do not understand combination circuits.
Achievement 3	Fully understand basic of sequential circuits.	Understand basic of sequential circuits.	Do not understand basic of sequential circuits.

Assigned Department Objectives

Teaching Method

Outline	The aim of this course is to understand the basic configuration and operating principles of arithmetic circuits, flip-flop circuits, counter circuits, etc., based on the Boolean algebra. Classes also involve exercises so that students can design appropriate circuits on their own.
Style	Classes will be held in a lecture style, mainly by explaining content following the textbook. As necessary, students will work on exercises and design assignments. Nakajima will teach in the first semester, and Hoshino in the second. Tsuchida is the liaison.
Notice	Students are required to learn in an active manner so they can design circuits themselves. If possible, they should construct the circuit they designed and study its operation. Students who miss 1/4 or more of classes will not be eligible for a grade 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	Binary numbers and Basics for radix conversions	Can explain binary numbers and Basics for radix conversions.
		2nd	Radix conversions and Basics for Logical operations	Can explain radix conversions and Basics for logical operations.
		3rd	Logical operations and Venn diagrams	Can explain logical operations and Venn diagrams.
		4th	Basics for the Boolean algebra	Can explain the basics of Boolean algebra.
		5th	Logical expressions and the Karnaugh map	Can explain logical expressions and the Karnaugh map.
		6th	Karnaugh map exercises	Can simplify a logical expression using the Karnaugh map.
		7th	Quine–McCluskey algorithm	Can explain the Quine–McCluskey algorithm
		8th	Basics of logic circuit design	Can explain the basics of logic circuit design.
	2nd Quarter	9th	Midterm exam	Midterm exam
		10th	Basics of gate circuits	Can explain the basics of gate circuits.
		11th	Basics of digital ICs	Can explain the basics of digital ICs.
		12th	Combination circuits 1 (e.g. how to design an adder circuit)	Can explain combination circuits (e.g. how to design an adder circuit).
		13th	Combination circuits 2 (e.g. how to design a data converter circuit)	Can explain combination circuits (e.g. how to design a data converter circuit).
		14th	Combination circuits 3 (e.g. how to design a data selector circuit)	Can explain combination circuits (e.g. how to design a data selector circuit).
		15th	Flip-flops 1 (e.g. basic of FFs, operating principles and characteristic equation of RS-FF and JK-FF)	Can explain flip-flops (e.g. basic of FFs, operating principles and characteristic equation of RS-FF and JK-FF).
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Exercise and Task	Total
Subtotal	70	30	100
Basic Proficiency	0	0	0
Specialized Proficiency	70	30	100

Cross Area Proficiency	0	0	0

Akashi College	Year	2024	Course Title	Digital Circuits B

Course Information

Course Code	6331	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	堀桂太郎：「図解論理回路入門」森北出版		
Instructor	OHMUKAI Masato		

Course Objectives

フリップフロップ回路の動作を理解し、それを用いた各種回路の動作についてタイミングチャートを用いて確認することができる。順序回路の設計ができる。AD変換回路とDA変換回路の原理と特徴を理解できる。

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	フリップフロップ回路の動作を十分に理解できる	フリップフロップ回路の動作を理解できる	フリップフロップ回路の動作を理解できない
評価項目2	順序回路の概念を十分に理解できる	順序回路の概念を理解できる	順序回路の概念を理解できない
評価項目3	DA変換回路とAD変換回路の各種類の原理と特徴を十分理解できる	DA変換回路とAD変換回路の各種類の原理と特徴を理解できる	DA変換回路とAD変換回路の各種類の原理と特徴を理解できない

Assigned Department Objectives

Teaching Method

Outline	論理回路の知識を基礎とし、各種フリップフロップ回路を解説し、これとロジックを用いて順序回路を設計する手法を身に着ける。さらに、ロジックを用いた3種のマルチバイブレータの回路、シュミット回路の動作を解説し、ＤＡ変換回路とＡＤ変換回路の各種を紹介する。
Style	講義形式により重要な概念の解説を行い、より深く理解するために、周囲とのコミュニケーションを交えた自習をおこなう。最後には小テストを行い理解度チェックを実施する。
Notice	評価の対象としない欠席条件（割合）>1/3以上

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	論理素子（ロジック）の基礎	基礎のロジックの動作を理解する
		2nd	組み合わせ回路の設計法とRSFF、JKFF	組み合わせ回路の設計ができ、RSFFとJKFFの動作と種類を理解する
		3rd	NANDで構成したDFFの動作	DFFの特性表を書くことができ、タイミングチャートで動作を記述できる。
		4th	シフトレジスタとリングカウンタ、TFFと分周回路、ジョンソンカウンタ	JKFFの特性表を書くことができ、TFF、シフトレジスタ、分周回路、ジョンソンカウンタのタイミングチャートで動作を記述できる。
		5th	確認テスト	60点以上を取得する。
		6th	FFの補足事項と機能変換	励起表を書くことによりあるFFを別のFFで構成する回路を設計することができる。
		7th	非同期式カウンタと同期式カウンタ	TFFを用いて非同期式カウンタと同期式カウンタの動作原理を理解し、カウンタの設計できる。
		8th	順序回路の設計法	順序回路の概念を理解し、状態遷移図と状態遷移表を作り、順序回路が設計できるようになる。
	4th Quarter	9th	順序回路の設計法の実例	順序回路の設計を重ねて、順序回路が設計できるようになる。
		10th	確認テスト	60点以上を取得する。
		11th	ロジックによる非安定マルチバイブレータの動作と双安定マルチバイブレータ	非安定マルチバイブレータの動作が理解できる。
		12th	単安定マルチバイブレータとシュミット回路の動作原理	単安定マルチバイブレータとシュミット回路の動作が理解できる。
		13th	OPアンプの基礎、重み抵抗型DA変換回路、はしご型DA変換回路	２種類のDA変換回路についてその回路を判別することができ、その動作を理解する。
		14th	AD変換回路の各種ー並列比較型、逐次比較型、追従比較型、２重積分型の原理と特徴	４種類のAD変換回路の原理と特徴を説明できる。
		15th	確認テスト	60点以上を取得する。
		16th		

Evaluation Method and Weight (%)

	試験	平常点	Total
Subtotal	50	50	100
基礎的能力	0	0	0
専門的能力	50	50	100
分野横断的能力	0	0	0

Akashi College	Year	2024	Course Title	Experiments of Electrical and Computer Engineering Ⅱ A

Course Information

Course Code	6332	Course Category	Specialized / Compulsory
Class Format	Experiment	Credits	School Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	First Semester	Classes per Week	4
Textbook and/or Teaching Materials	For each experiment theme, materials will be distributed in print and explained.		
Instructor	SUYAMA Taikei,HOSOKAWA Atsuishi,HIROTA Atsushi,		

Course Objectives

1) Can conduct experiments using experimental equipment.
2) Can organize the results of experiments and analyze them so they can be understood from an engineering perspective.
3) Can write up reports about experiments and submit them on time.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can carry out experiments efficiently and accurately.	Can carry out experiments.	Cannot carry out experiments.
Achievement 2	Can organize the experimental results and analyze them in depth.	Can organize and analyze experimental results.	Cannot organize and analyze experimental results.
Achievement 3	Can write up detailed experimental reports and submit them on time.	Can write up experimental reports and submit them on time.	Cannot write up experimental reports and submit them on time.

Assigned Department Objectives

Teaching Method

Outline	The aim of this course is to gain a better understanding of electrical information engineering experiments and the ability to learn actively through experiments. Students are expected to develop a habit of using the equipment correctly and organizing the laboratory. Several faculty members will be in charge of multiple experimental themes.
Style	Students will split into groups of 3-5 people, and each group will perform experiments on each theme, and organize and analyze the obtained data. Also, they will write up reports and receive individual guidance.
Notice	If all reports have not been received by the due date, students will not receive a passing grade. Students must clean the lab and put away the equipment properly. Precautions regarding the experiments will be given during the first week of the first and second semesters. Students who do not perform all experiments will not be eligible for a grade evaluation. In addition, students who fail to submit reports will not achieve 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	Experiment guidance	Understand the outline and precautions regarding the previous experiment.
		2nd	Logic trainers I	Can identify the operation of basic logic circuits using a logic trainer.
		3rd	Report organization	Can write up reports based on experimental data.
		4th	Thermocouples	Can measure thermal power in experiments.
		5th	Report organization	Can write up reports based on experimental data.
		6th	Measuring techniques for AC circuits	Can correctly measure an AC circuit.
		7th	Report organization	Can write up reports based on experimental data.
		8th	Series resonance	Can measure the voltage of each element of the RLC series and experimentally examine resonance phenomena.
	2nd Quarter	9th	Report organization	Can write up reports based on experimental data.
		10th	Digital Oscilloscopes and Waveform Processing	Can perform waveform observation and Fourier series deployment calculations using a digital oscilloscope.
		11th	Report organization	Can write up reports based on experimental data.
		12th	Phototransistor	Can understand the properties of phototransistors.
		13th	Report organization	Can write up reports based on experimental data.
		14th	Raspberry Pi	Can use the Raspberry Pi for a project.
		15th	Organizing and organizing experiments	All reports from the previous quarter can be submitted together.
		16th	No final exam	None

Evaluation Method and Weight (%)

	Examination	Report	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	0	80	0	20	0	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	0	80	0	20	0	0	100
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Experiments of Electrical and Computer Engineering Ⅱ B

Course Information

Course Code	6333	Course Category	Specialized / Compulsory
Class Format	Experiment	Credits	School Credit: 2
Department	Electrical and Computer Engineering	Student Grade	3rd
Term	Second Semester	Classes per Week	4
Textbook and/or Teaching Materials			
Instructor	SUYAMA Taikei,HIROTA Atsushi,		

Course Objectives

1) Can conduct experiments using experimental equipment.
2) Can organize the results of experiments and analyze them so they can be understood from an engineering perspective.
3) Can write up reports about experiments and submit them on time.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can carry out experiments efficiently and accurately.	Can carry out experiments.	Cannot carry out experiments.
Achievement 2	Can organize the experimental results and analyze them in depth.	Can organize and analyze experimental results.	Cannot organize and analyze experimental results.
Achievement 3	Can write up detailed experimental reports and submit them on time.	Can write up experimental reports and submit them on time.	Cannot write up experimental reports and submit them on time.

Assigned Department Objectives

Teaching Method

Outline	The aim of this course is to gain a better understanding of electrical information engineering experiments and the ability to learn actively through experiments. Students are expected to develop a habit of using the equipment correctly and organizing the laboratory. Several faculty members will be in charge of multiple experimental themes with Suyama,Hirota, and Enomoto in the second semester. The experiments for weeks 13 and 14 of the second semester will be conducted by a faculty member who engaged in the research and development of middleware (database) at Hitachi, Ltd. Research & Development Headquarters for five years.
Style	Students will split into groups of 4 or 5 people, and each group will perform experiments on each theme, and organize and analyze the obtained data. Also, they will write up reports and receive individual guidance.
Notice	If all reports have not been received by the due date, students will not receive a passing grade. Students must clean the lab and put away the equipment properly. Precautions regarding the experiments will be given during the first week of the first and second semesters. Students who fail to submit reports will not receive 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	Experiment guidance	Can understand the outline and precautions for second semester experiments.
		2nd	Characteristics of FETs	Can measure the basic characteristics of FETs.
		3rd	Dynamic characteristics of FETs	Can measure the dynamic characteristics of a FET amplifier circuit.
		4th	Report organization	Can write up reports based on experimental data by the due date.
		5th	Characteristics of natural energy generation	Can experimentally examine current voltage and output characteristics of natural energy generation .
		6th	Report organization	Can write up reports based on experimental data.
		7th	No load test of a direct current electric motor	Can test the unloaded characteristics of a direct current electric motor.
		8th	Report organization	Can write up reports based on experimental data.
	4th Quarter	9th	Direct current generator load test	Can examine the load characteristics of a direct current generator.
		10th	Report organization	Can write up reports based on experimental data.
		11th	Basic characteristics of an operational amplifier	Can examine the frequency characteristics of an inverted amplifier using an oscilloscope.
		12th	Report organization	Can write up reports based on experimental data.
		13th	The efficiency of sorting algorithms (1)	Can examine the efficiency of the sorting algorithms.
		14th	The efficiency of the sorting algorithms (2)	Can examine the efficiency of the sorting algorithms.
		15th	Experiment Summary and Organization	Can submit all reports all together at once.
		16th	No final exam	None

Evaluation Method and Weight (%)

	Examination	Report	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	0	80	0	20	0	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	0	80	0	20	0	0	100
Cross Area Proficiency	0	0	0	0	0	0	0