Akashi College	Civil Engineering	Year	2023
Department Goals			

Course Category		Course Title	Course Code	Credit Type	Credits	Class Hours per Week																Instructor	Division in Learning
						1st Year				2nd Year				3rd Year				4th Year				5th Year			
						1st		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	5101	School Credit	1	2																				TANGE Atsuko	
General	Compulsory	Japanese I-2	5102	School Credit	1			2																		TANGE Atsuko	
General	Compulsory	History-1	5103	School Credit	1	2																				ARAKAWA Hironori	
General	Compulsory	History-2	5104	School Credit	1			2																		ARAKAWA Hironori	
General	Compulsory	Mathematics Ⅰ A-1	5105	School Credit	2	4																				MATSUMIYA Atusi	
General	Compulsory	Mathematics Ⅰ A-2	5106	School Credit	2			4																		MATSUMIYA Atusi	
General	Compulsory	Mathematics Ⅰ B-1	5107	School Credit	1	2																				TAKATA Isao	
General	Compulsory	Mathematics Ⅰ B-2	5108	School Credit	1			2																		TAKATA Isao	
General	Compulsory	Science Ⅰ-1	5109	School Credit	1	2																				TAKEUCHI Masahiro	
General	Compulsory	Science Ⅰ-2	5110	School Credit	1			2																		TAKEUCHI Masahiro	
General	Compulsory	Physical Education I-1	5111	School Credit	1	2																				GOTOH Takayuki,KOBAYASHI Yuki	
General	Compulsory	Physical Education I-2	5112	School Credit	1			2																		GOTOH Takayuki,ISHIDA Masami	
General	Compulsory	English I A-1	5113	School Credit	1	2																				AKIMOTO Hiromi	
General	Compulsory	English I A-2	5114	School Credit	1			2																		AKIMOTO Hiromi	

General	Compulsory	English I B-1	5115	School Credit	1	2	KITAGAWA Chiho	
General	Compulsory	English I B-2	5116	School Credit	1	2	KITAGAWA Chiho	
General	Compulsory	Introduction to Active Learning	5117	School Credit	1	2	TAKEDA Naho, HIRANO Masatsugu, MIZUNO Yuki	
General	Compulsory	Introduction to Data Science	5118	School Credit	1	2	TSUCHIDA Takayuki,NOMURA Hayato	
General	Compulsory	Exercise in Data Science	5119	School Credit	1	2	TSUCHIDA Takayuki,NOMURA Hayato,ENOMOTO Ryuji	
General	Elective	Music-1	5120	School Credit	1	2	IZUMI Yuka	
General	Elective	Music-2	5121	School Credit	1	2	IZUMI Yuka	
General	Elective	Art-1	5122	School Credit	1	2	OHNO Ryohei	
General	Elective	Art-2	5123	School Credit	1	2	OHNO Ryohei	
General	Compulsory	Japanese Ⅰ-1	5124	School Credit	3	6	KUBOTA Ikumi	
General	Compulsory	Japanese Ⅰ-2	5125	School Credit	2	4	KUBOTA Ikumi	
General	Compulsory	Japanese Culture and Society	5126	School Credit	1	2	KUBOTA Ikumi	
Specialized	Compulsory	Literacy for Disaster Risk Reduction	5127	School Credit	1	2	MOTOZUKA Tomoki,YEGANE GHEZELLOO	
Specialized	Compulsory	Introduction to Civil Engineering	5128	School Credit	1	2	TAKEDA Naho	
Specialized	Compulsory	Introduction of Computer Application	5129	School Credit	1	2	HIRAISHI Toshihiro	

Specialized	Compulsory	Foundamental Drawing of Civil Engineering	5130	Academic Credit	2			2																		UESUGI Shuetsu	
Specialized	Compulsory	Surveying I	5131	Academic Credit	2	2																				IKUTA Ami	
Specialized	Compulsory	Practice of Surveying	5132	School Credit	1	2																				IKUTA Ami,YEGANE GHEZELLOO	
Specialized	Compulsory	Fundamentals of Engineering	5133	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														,ARAKAWA Hironori	
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	Information Processing I	6226	Academic Credit	2							2														WATANABE Moriyoshi	
Specialized	Compulsory	Surveying II	6227	Academic Credit	2					2																IKUTA Ami	
Specialized	Compulsory	Civil Engineering Materials Ⅰ	6228	School Credit	1					2																TAKEDA Naho	
Specialized	Compulsory	Civil Engineering Materials Ⅱ	6229	School Credit	1							2														TAKEDA Naho	

Specialized	Compulsory	Exercises of Surveying Ⅰ	6230	Academic Credit	2	2	IKUTA Ami,OSHIRO Yuki,KAKUNO Yoshinori	
Specialized	Compulsory	Exercises of Surveying Ⅱ	6231	Academic Credit	2	2	IKUTA Ami,OSHIRO Yuki,NABESHIMA Yasuyuki	

Akashi College	Year	2023	Course Title	Japanese I-1

Course Information

Course Code	5101	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	中島国彦 他『精選現代の国語』『精選言語文化』（明治書院）、『新訂総合国語便覧』（第一学習社）		
Instructor	TANGE Atsuko		

Course Objectives

1)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	構成と展開を説明でき、大意を捉えて要約ができる。	構成が説明でき、要約できる。	要旨は分かるが、構成を捉えられない。
評価項目2	人物形象から主題を捉え、批判的に考察できる。	登場人物の整理ができ、主題が捉えられる。	人物造型の違いは把握できるが、主題が捉えられない。
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・展開できる。	明確な意見とそれを表す段落構成を作成できる。	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、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	表現に即して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できる
	2nd Quarter	9th	「宇治拾遺物語」の読解	文学史の上から理解できる。適切に音読し、文意を理解できる
		10th	「宇治拾遺物語」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
		11th	「伊勢物語」の読解	文学史の上から理解できる。適切に音読し、文意を理解できる
		12th	「伊勢物語」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
		13th	「美意識は資源である」の読解	適切に音読でき、本文の構成と展開を説明できる
		14th	「美意識は資源である」の読解	作品内容に対して批判的意見をあげることができる
		15th	「美意識は資源である」の読解	作品内容に対して批判的意見をあげることができる
		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	2023	Course Title	Japanese I-2

Course Information

Course Code	5102	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	中島国彦 他『精選現代の国語』『精選言語文化』（明治書院）、『新訂総合国語便覧』（第一学習社）		
Instructor	TANGE Atsuko		

Course Objectives

1)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	構成と展開を説明でき、大意を捉えて要約ができる。	構成が説明でき、要約できる。	要旨は分かるが、構成を捉えられない。
評価項目2	人物形象から主題を捉え、批判的に考察できる。	登場人物の整理ができ、主題が捉えられる。	人物造型の違いは把握できるが、主題が捉えられない。
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・展開できる。	明確な意見とそれを表す段落構成を作成できる。	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、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、「働くことの意味」の読解	論説文について、適切に音読し、表現に即して構成を理解することができる
		2nd	「働くことの意味」の読解	論説文について、論理的展開と論証を理解し、説明することができる
		3rd	「働くことの意味」の読解	論説文について、論理的展開と論証を理解し、説明することができる
		4th	「平家物語」の読解	文学史上の評価、古文の文法について理解し、作品の様式が理解できる
		5th	「平家物語」の読解	文学史上の評価、古文の文法について理解し、作品の様式が理解できる
		6th	「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
		7th	「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
		8th	「平家物語」の読解	史的位置をとらえ、作品評価としての意見をあげることができる
	4th Quarter	9th	「世界中がハンバーガー」の読解	適切に音読し、表現に即して構成を理解することができる
		10th	「世界中がハンバーガー」の読解	論理的展開と論証を理解し、説明することができる
		11th	「世界中がハンバーガー」の読解	教科書の設問に答え、主題を理解することができる
		12th	「蛇足」の読解	漢文の基本的読解法を理解し、適切に音読できる
		13th	「蛇足」の読解・「唐詩」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
		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	2023	Course Title	Mathematics Ⅰ A-1

Course Information

Course Code	5105	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 2
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	4
Textbook and/or Teaching Materials	新基礎数学　高遠節夫ほか著（大日本図書）、同問題集		
Instructor	MATSUMIYA Atusi		

Course Objectives

1) To understand numbers and equations, and be able to calculate them.
2) To understand Equation and inequality, and be able to solve them.
3) To understand and functions and graphs, and be able to use them.
4) To understand exponential and logarithmic functions, and be able to use them.
5) 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
1) Numbers and equations	Can understand numbers and equations, and be able to calculate them.	Can understand numbers and equations.	Can not understand numbers and equations.
2) Equation and inequality	Can understand Equation and inequality, and be able to solve them.	Can understand Equation and inequality.	Can not understand Equation and inequality.
3)Functions and graphs	Can understand and functions and graphs, and be able to use them.	Can understand and functions and graphs.	Can nt understand and functions and graphs.
4) Exponential and logarithmic functions,	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.
5) Number of possible outcomes and probability	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	Preparation study for the lectures is a prerequisite, and the teacher will check it on each lesson. In the manner that the student can concentrate on the lecture, he/she should ask about everything he/she could not understand in the preparatory study for the lectures or during the lectures. Please do not leave anything you did not understand for later. Be sure to review regularly and try to solve the problem collection in the textbooks. The teacher will conduct small tests without prior notice. Therefore the student should study hard every day.
Notice	Examination 50%, assignments 20 %, and presentation 30% of the final grade. The students should acquire more than 60 points to receive the credits. However, this ratio is for the final grade, the cumulative evaluation up to the latter middle term exams is a tentative ratio and may result in a different grade than the final one. If assignments, presentations, are done well and handle in time, they may have a positive impact in the final 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	Numbers and equations	To calculate additive, subtractive, and multiplicative equations. Also, you can factor decompose simple equations.
		2nd	Numbers and equations	To calculate the division of the formula. Also, to understand the remainder theorem and factor theorem, and factorize higher-order polynomial equations.
		3rd	Numbers and equations	To calculate addition, subtraction, multiplication, division, of fractional expressions. To understand the meaning of real numbers and absolute values, and to do simple calculation with absolute values.
		4th	Numbers and equations	To calculate basic square root equations (including rationalization of denominator). To understand the equivalence of complex numbers, and do the four arithmetical operations: addition, subtraction, multiplication, and division.
		5th	Equation	To solve the quadratic equation using the official formula. To understand the relationship between the solutions and the coefficients, and factorize quadratic expressions.

		6th	Equation	To solve various equations (simultaneous equations, irrational equations, fractional equations, etc.). To understand the identity operator, and do partial fraction decomposition.
		7th	Summary	To review what was studied so far.
		8th	Mid term exam	To check was learned so far.
	2nd Quarter	9th	Equation	To prove various equations.
		10th	Inequality	To understand the nature of inequality and solve linear inequality.
		11th	Inequality	To solve various inequalities (simultaneous inequality, quadratic inequality, higher order inequality).
		12th	Inequality	To prove various inequalities, including the additive geometric mean.
		13th	Inequality	To understand set, and to judge the truth of the proposition.
		14th	Quadratic function	To understand the relationship between functions and graphs, and use the domain, range, and quadrant.
		15th	Summary	To review what was studied so far.
		16th	End term exam	To check was learned so far.

Evaluation Method and Weight (%)

	Examination	Assigments	Peer Assessment	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	2023	Course Title	Mathematics Ⅰ A-2

Course Information

Course Code	5106	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 2
Department	Civil Engineering	Student Grade	1st
Term	Second 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	MATSUMIYA Atusi		

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。
4) 指数関数と対数関数を理解し、使うことができる。
5) 場合の数と確率の基礎を理解し、計算することができる。

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
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。
3) 関数とグラフを理解し、使うことができる。	関数とグラフを使うことができる。	関数とグラフを理解できる。	関数とグラフを理解できない。
4) 指数関数と対数関数を理解し、使うことができる。	指数関数と対数関数を使うことができる。	指数関数と対数関数を理解できる。	指数関数と対数関数を理解できない。
5) 場合の数と確率の基礎を理解し、計算することができる。	場合の数と確率の基礎を計算することができる。	場合の数と確率の基礎を理解できる。	場合の数と確率の基礎を理解できない。

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	予習して講義を受けること。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を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の問題を解くように心がけること。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。
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、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加点することもある。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	２次関数	2次関数のグラフを描くことができ、最大値・最小値を求めることができる。
		2nd	２次関数	2次関数のグラフを使い、2次方程式・2次不等式を解くことができる。
		3rd	いろいろな関数	偶関数・奇関数、グラフの平行移動を理解し、べき関数・分数関数を描くことができる。
		4th	いろいろな関数	無理関数を描くことができ、逆関数を求めることができる。
		5th	指数関数	累乗根を理解し、指数の拡張を理解し使うことができる。
		6th	指数関数	指数関数のグラフを描くことができ、簡単な指数の方程式・不等式を解くことができる。
		7th	総括	いままでの勉強を復習をする。
		8th	中間試験	いままでの学習の確認をする。
	4th Quarter	9th	対数関数	対数を理解し、対数の性質、底の変換公式を使うことができる。
		10th	対数関数	対数関数のグラフを描き、簡単な対数の方程式・不等式を解くことができる。常用対数を使うことができる。
		11th	場合の数	積の法則・和の法則を理解し簡単な場合の数を求めることができる。いろいろな順列の値を求めることができる。
		12th	場合の数	いろいろな組み合わせの値を求めることができる。二項定理を使うことができる。
		13th	確率の基礎	独立試行の確率、余事象の確率、排反事象の確率を理解し、計算ができる。
		14th	確率の基礎	条件付き確率、独立事象の確立などを理解し、計算ができる。
		15th	総括	いままでの勉強を復習をする。

		16th	期末試験	いままでの学習の確認をする。

Evaluation Method and Weight (%)

	試験	課題	発表および平素の取り組み		Total
Subtotal	50	20	30	0	100
基礎的能力	50	20	30	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	2023	Course Title	Mathematics Ⅰ B-1

Course Information

Course Code	5107	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Fundamental Mathematics (Dai Nihon Tosho)		
Instructor	TAKATA Isao		

Course Objectives

To understand and solve problems related to trigonometric functions.

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	Students will learn about trigonometric functions and acquire a basic understanding of mathematics required by technical colleges.
Style	Students are asked to prepare for the class with video clips according to the syllabus. Students will be asked to study in groups during class to check their level of understanding. Bilingual classes may be offered.
Notice	Review your work before class. Do not leave anything you do not understand unanswered, but ask questions. Study independently by using problem collections. CBT will be given in one of the weeks. Students who miss 1/3 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☑ Active Learning	☑ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Class Description	Confirm how to proceed with the class.
		2nd	Triangle ratio and its application	Can find the trigonometric ratios of acute and obtuse angles.
		3rd	Triangle ratio and its application	Can find the trigonometric ratios of general angles.
		4th	Triangle ratio and its application	Can use the sine theorem and find the area of a triangle.
		5th	Trigonometric function	Can use the cosine theorem and use the radian system.
		6th	Trigonometric function	Can find the area of a fan shape and understand the properties of trigonometric functions.
		7th	Trigonometric function	Can draw graphs of simple trigonometric functions.
		8th	Trigonometric function	Can solve the trigonometric equations.
	2nd Quarter	9th	Trigonometric function	Can solve the trigonometric inequalities.
		10th	Addition Theorem and its Applications	Can calculate trigonometric ratios using the addition theorem.
		11th	Addition Theorem and its Applications	Can use the double angle formula.
		12th	Addition Theorem and its Applications	Can derive sum-of-products formulas, and perform calculations using these formulas.
		13th	CBT test	CBT test to check retention.
		14th	Summary	Review of the total.
		15th	Addition Theorem and its Applications	Can compose trigonometric functions.
		16th	Exam	Confirmation of the studies.

Evaluation Method and Weight (%)

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

Akashi College	Year	2023	Course Title	Mathematics Ⅰ B-2

Course Information

Course Code	5108	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	Fundamental Mathematics (Dai Nihon Tosho)		
Instructor	TAKATA Isao		

Course Objectives

To understand figures, equations, and sequences of numbers and be able to solve related problems.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can understand the relationship between equations and figures, and solve problems involving straight lines and quadratic curves adequately.	Can understand the relationship between equations and figures, and solve problems involving straight lines and quadratic curves.	Cannot understand the relationship between equations and figures, and cannot solve problems involving straight lines and quadratic curves.
Achievement 2	Can find general terms and sums of sequences of numbers adequately.	Can find general terms and sums of sequences of numbers.	Cannot find general terms and sums of sequences of numbers.

Assigned Department Objectives

Teaching Method

Outline	Students will learn about figures, their equations, and the number line, and acquire a basic understanding of the mathematics required by technical colleges.
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	Review	Answers to the final exam of the first semester and a homework test during the summer vacation will be given.
		2nd	Points and Lines	Can find the interior and exterior dividing points.
		3rd	Points and Lines	Can find the equation of a straight line.
		4th	Quadratic curves	Can find the equation of a circle.
		5th	Quadratic curves	Can find the equation of an ellipse.
		6th	Quadratic curves	Can find the equation of a hyperbolic curve.
		7th	Quadratic curves	Can draw the region represented by the inequality.
		8th	CBT test	CBT test to check retention.
	4th Quarter	9th	Sequences	Can find the general term of the arithmetical progression.
		10th	Sequences	Can find the general term of the geometrical progression.
		11th	Sequences	Can find the general term of a sequence of numbers by using the factorial sequence.
		12th	Sequences	Can find the general term of a sequence of numbers given by a recurrence formula.
		13th	Sequences	Can use the mathematical induction.
		14th	CBT test	CBT test to check retention.
		15th	Summary	Review of the total.
		16th	Exam	Confirmation of the studies.

Evaluation Method and Weight (%)

	Examination	Comprehension Test	Review Tests	Assignments	Attendance Points	Total
Subtotal	25	20	25	15	15	100
Basic Proficiency	25	20	25	15	15	100
Specialized Proficiency	0	0	0	0	0	0

Cross Area Proficiency	0	0	0	0	0	0

Akashi College	Year	2023	Course Title	Physical Education I-1

Course Information

Course Code	5111	Course Category	General / Compulsory
Class Format	講義・実技	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	GOTOH Takayuki,KOBAYASHI Yuki		

Course Objectives

・ Participate in classes to improve students' own health and physical strength. Also, have some level of self-discipline.
・ Can take action to conduct sports safely. Also, recognizes the significance of collaborating and cooperating with the team and can take the necessary action to do so.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Actively participate in classes to improve their health and physical strength. Have a high level of self-discipline.	Participate in classes to improve their health and physical strength. Have some level of self-discipline.	Reluctant to participate in classes, or improve their own health and physical strength. Do not have a high level of self-discipline.
Achievement 2	Actively participate in various sport practices and games, and are very competitive. Also have a great influence on games, etc.	Can actively participate in various sport practices and games. And also have the skills for them.	Do not participate in various sport practices and games.
Achievement 3	Understand the role of a leader well, and can help increase teamwork.	Understand and can play or take on the role of a leader.	Do not understand the role of a leader. Also, never play that role.

Assigned Department Objectives

Teaching Method

Outline	The goal of this course is for students to learn more about the fun and depth of sports so that they can build the habit of playing sports on a daily basis. This class requires an active and proactive attitude to participate. Students will split into groups and leaders will take the lead to plan, review, and implement the course content. Students can choose from: Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis
Style	Students are encouraged to actively participate in games and practice and to discover the fun of sports. First, they should learn the rules and how to play games, etc., and try to learn basic skills. In addition, they are expected to develop more advanced technologies and improve teamwork through games and game-style practice. Students and instructors should work together to create a safe and welcoming class.
Notice	・ Wear school-designated training wear, athletic shoes, or other designated clothing. If students fail to wear them, points will be deducted from their grade. ・ Do not wear or bring accessories, watches, or any other unnecessary items. These are also eligible for grade deduction. ・ Tardiness will be excused for the first 20 minutes. Students can participate in the class after 20 minutes, but their attendance will be marked as absent. ・ If it is discovered that a student left class early without being excused (ditching class), their attendance for that class will be marked as absent, and their grade for previous classes will suffer a deduction equal to an absence. ・Students who miss 1/4 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☑ Active Learning	☐ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Guidance	Understand the purposes and objectives of this course. Reacknowledge that warm-ups are necessary to safely exercise.
		2nd	Guidance	Understand the purposes and objectives of this course. Reacknowledge that warm-ups are necessary to safely exercise.
		3rd	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		4th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		5th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		6th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		7th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		8th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	2nd Quarter	9th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Split into teams in each sport and select a leader.

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

Evaluation Method and Weight (%)

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

Akashi College	Year	2023	Course Title	Physical Education I-2

Course Information

Course Code	5112	Course Category	General / Compulsory
Class Format	講義・実技	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	GOTOH Takayuki,ISHIDA Masami		

Course Objectives

・ Participate in classes to improve students' own health and physical strength. Also, have some level of self-discipline.
・ Can take action to conduct sports safely. Also, recognizes the significance of collaborating and cooperating with the team and can take the necessary action to do so.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Actively participate in classes to improve their health and physical strength. Have a high level of self-discipline.	Participate in classes to improve their health and physical strength. Have some level of self-discipline.	Reluctant to participate in classes, or improve their own health and physical strength. Do not have a high level of self-discipline.
Achievement 2	Actively participate in various sport practices and games, and are very competitive. Also have a great influence on games, etc.	Can actively participate in various sport practices and games. And also have the skills for them.	Do not participate in various sport practices and games.
Achievement 3	Understand the role of a leader well, and can help increase teamwork.	Understand and can play or take on the role of a leader.	Do not understand the role of a leader. Also, never play that role.

Assigned Department Objectives

Teaching Method

Outline	The goal of this course is for students to learn more about the fun and depth of sports so that they can build the habit of playing sports on a daily basis. This class requires an active and proactive attitude to participate. Students will split into groups and leaders will take the lead to plan, review, and implement the course content. Students can choose from: Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis
Style	Students are encouraged to actively participate in games and practice and to discover the fun of sports. First, they should learn the rules and how to play games, etc., and try to learn basic skills. In addition, they are expected to develop more advanced technologies and improve teamwork through games and game-style practice. Students and instructors should work together to create a safe and welcoming class.
Notice	・ Wear school-designated training wear, athletic shoes, or other designated clothing. If students fail to wear them, points will be deducted from their grade. ・ Do not wear or bring accessories, watches, or any other unnecessary items. These are also eligible for grade deduction. ・ Tardiness will be excused for the first 20 minutes. Students can participate in the class after 20 minutes, but their attendance will be marked as absent. ・ If it is discovered that a student left class early without being excused (ditching class), their attendance for that class will be marked as absent, and their grade for previous classes will suffer a deduction equal to an absence. ・Students who miss 1/4 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☑ Active Learning	☐ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
2nd Semester	3rd Quarter	1st	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Split into teams in each sport and select a leader.
		2nd	Health (joint class with Hyogo University Department of Nursing)	Reflect on their own health and take the opportunity to reconsider their future lifestyles.
		3rd	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		4th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		5th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		6th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		7th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
		8th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.
	4th Quarter	9th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Split into teams in each sport and select a leader.
		10th	Baseball, softball, soccer, futsal, tennis, basketball, volleyball, badminton, table tennis	Can do warm-up and practice, play games, and reflect on the class, led by a leader.

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

Evaluation Method and Weight (%)

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

Akashi College	Year	2023	Course Title	English I A-1

Course Information

Course Code	5113	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	New Rays English Communication I / New Rays WORKBOOK		
Instructor	AKIMOTO Hiromi		

Course Objectives

1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately.
2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines.
3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines.
4) Can read sentences written in English, understand the text outline, read and extract necessary information.
5) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.
Achievement 2	The student has well learned to use grammar rules appropriately, according to the high school study guidelines.	The student has learned to use grammar rules appropriately, according to the high school study guidelines.	The student has not learned to use grammar rules appropriately, according to the high school study guidelines.
Achievement 3	The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.
Achievement 4	The student can well read sentences written in English, understand the text outline, read and extract necessary information.	The student can read sentences written in English, understand the text outline, read and extract necessary information.	The student can not read sentences written in English, understand the text outline, read and extract necessary information.
Achievement 5	The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.

Assigned Department Objectives

Teaching Method

Outline	Based on the junior high school learned content, to understand the basic structure of English sentences and acquire reading skills. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook. Handout will be provided in the first week. Go over the handout and understand it in detail.
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☐ Active Learning	☐ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Course guidance (Course progress method, learning method, etc.)	Understand course content and assignments.
		2nd	Chapter 1 Part 1/2	Based on the content learned in junior high school understand English language basic structure.
		3rd	Chapter 1 Part 2/3	Based on the content learned in junior high school understand English language basic structure.
		4th	Chapter 1 Part 4 Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.
		5th	Chapter 2 Part 1/2	Based on the content learned in junior high school understand English language basic structure.
		6th	Chapter 2 Part 2/3	Based on the content learned in junior high school understand English language basic structure.
		7th	Chapter 2 Part 4 Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.
		8th	Chapter 3 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.

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

Evaluation Method and Weight (%)

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

Akashi College	Year	2023	Course Title	English I A-2

Course Information

Course Code	5114	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	New Rays English Communication I / New Rays WORKBOOK		
Instructor	AKIMOTO Hiromi		

Course Objectives

1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately.
2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines.
3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines.
4) Can read sentences written in English, understand the text outline, read and extract necessary information.
5) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.
Achievement 2	The student has well learned to use grammar rules appropriately, according to the high school study guidelines.	The student has learned to use grammar rules appropriately, according to the high school study guidelines.	The student has not learned to use grammar rules appropriately, according to the high school study guidelines.
Achievement 3	The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.
Achievement 4	The student can well read sentences written in English, understand the text outline, read and extract necessary information.	The student can read sentences written in English, understand the text outline, read and extract necessary information.	The student can not read sentences written in English, understand the text outline, read and extract necessary information.
Achievement 5	The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.

Assigned Department Objectives

Teaching Method

Outline	Based on the junior high school learned content, to understand the basic structure of English sentences and acquire reading skills. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook. Handout will be provided in the first week. Go over the handout and understand it in detail.
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☐ Active Learning	☐ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
2nd Semester	3rd Quarter	1st	Go over the previous lessons	To overcome weak points
		2nd	Chapter 5 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		3rd	Chapter 5 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.
		4th	Chapter 5 Part 4 Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.
		5th	Chapter 6 Part 1/2	Learn the vocabulary and grammar rules set as lesson tasks.
		6th	Chapter 6 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.
		7th	Chapter 6 Part 4 Language and Culture Workshop	Understanding the cross-cultural communication through authentic materials.
		8th	Chapter 7 Part 1/2	Understanding the cross-cultural communication through authentic materials.
	4th Quarter	9th	Chapter 7 Part 2/3	Learn the vocabulary and grammar rules set as lesson tasks.

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

Evaluation Method and Weight (%)

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

Akashi College	Year	2023	Course Title	English I B-1

Course Information

Course Code	5115	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	(1) 総合英語 Evergreen（参考書、教科書、Workbook） (2) データベース 5th Edition (3) ネクステージ		
Instructor	KITAGAWA Chiho		

Course Objectives

1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately.
2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines.
3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines.
4) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.
Achievement 2	The student has well learned to use grammar rules appropriately, according to the high school study guidelines.	The student has learned to use grammar rules appropriately, according to the high school study guidelines.	The student has not learned to use grammar rules appropriately, according to the high school study guidelines.
Achievement 3	The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.
Achievement 4	The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener	The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.

Assigned Department Objectives

Teaching Method

Outline	Based on the junior high school learned content, to understand the basic structure of English sentences. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook.
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☐ Active Learning	☑ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Course summary explanation	Understand the class schedule
		2nd	Lesson 1 & 2	Learn the vocabulary and grammar rules set as lesson tasks.
		3rd	Lesson 3 & 4	Learn the vocabulary and grammar rules set as lesson tasks.
		4th	Lesson 5 & 6	Learn the vocabulary and grammar rules set as lesson tasks.
		5th	Review	Understanding the weak points on the content learned so far.
		6th	Review	Understanding the weak points on the content learned so far.
		7th	Lesson 7 & 8	Learn the vocabulary and grammar rules set as lesson tasks.
		8th	Lesson 9 &10	Learn the vocabulary and grammar rules set as lesson tasks.
	2nd Quarter	9th	Lesson 11 & 12	Learn the vocabulary and grammar rules set as lesson tasks.
		10th	Review	Understanding the weak points on the content learned so far.
		11th	Lesson 13 & 14	Learn the vocabulary and grammar rules set as lesson tasks.
		12th	Lesson 15 & 16	Learn the vocabulary and grammar rules set as lesson tasks.

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

Evaluation Method and Weight (%)

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

Akashi College	Year	2023	Course Title	English I B-2

Course Information

Course Code	5116	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	(1) 総合英語 Evergreen（参考書、教科書、Workbook） (2) データベース 5th Edition (3) ネクステージ		
Instructor	KITAGAWA Chiho		

Course Objectives

1) To review the vocabulary learned at junior high school, acquire new vocabulary following the high school learning guidelines, and use it appropriately.
2) To review the grammar learned at junior high school, and learn to use grammar rules appropriately, according to the high school study guidelines.
3) To review sentences structures learned in junior high school, and learn to use sentence structures and operate them appropriately, following the high school learning guidelines.
4) To acquire English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	The student has well acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has acquired new vocabulary following the high school learning guidelines and use it appropriately.	The student has not acquired new vocabulary following the high school learning guidelines and use it appropriately.
Achievement 2	The student has well learned to use grammar rules appropriately, according to the high school study guidelines.	The student has learned to use grammar rules appropriately, according to the high school study guidelines.	The student has not learned to use grammar rules appropriately, according to the high school study guidelines.
Achievement 3	The student has well learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has learned to use sentence structures and operate them appropriately, following the high school learning guidelines.	The student has not learned to use sentence structures and operate them appropriately, following the high school learning guidelines.
Achievement 4	The student has well acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.	The student has acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener	The student has not acquired English pronunciation skills and accent rules so that the student can speak clearly and communicate to the listener.

Assigned Department Objectives

Teaching Method

Outline	Based on the junior high school learned content, to understand the basic structure of English sentences. To acquire the ability to listen and express simple English sentences. To perform word tests and strengthen vocabulary knowledge.
Style	Attend the classes, prepare for the classes studying the relevant sections of the workbook.
Notice	Use quizzes to increase student vocabulary and develop listening ability. Students who miss 1/4 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☐ Active Learning	☑ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
2nd Semester	3rd Quarter	1st	Course summary explanation	Understand the class schedule
		2nd	Lesson 21 & 22	Learn the vocabulary and grammar rules set as lesson tasks.
		3rd	Lesson 23 & 24	Learn the vocabulary and grammar rules set as lesson tasks.
		4th	Lesson 25 & 26	Learn the vocabulary and grammar rules set as lesson tasks.
		5th	Review	Understanding the weak points on the content learned so far.
		6th	Lesson 27 & 28	Learn the vocabulary and grammar rules set as lesson tasks.
		7th	Lesson 29 & 30	Learn the vocabulary and grammar rules set as lesson tasks.
		8th	Lesson 31 & 32	Learn the vocabulary and grammar rules set as lesson tasks.
	4th Quarter	9th	Lesson 33 & 34	Learn the vocabulary and grammar rules set as lesson tasks.
		10th	Review	Understanding the weak points on the content learned so far.
		11th	Lesson 35 & 36	Learn the vocabulary and grammar rules set as lesson tasks.
		12th	Lesson 37 & 38	Learn the vocabulary and grammar rules set as lesson tasks.

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

Evaluation Method and Weight (%)

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

Akashi College	Year	2023	Course Title	Introduction to Active Learning

Course Information

Course Code	5117	Course Category	General / Compulsory
Class Format	Seminar	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	A separate handout will be provided.		
Instructor	TAKEDA Naho,HIRANO Masatsugu,MIZUNO Yuki		

Course Objectives

Students acquire the mind, knowledge, and skills that form the basis of learning by grasping their interests and interests, thinking and acting with others.
Students learn about the idea of building relationships between each other, work on problem solving as a team, and experience learning to achieve optimal solutions.
Based on the purpose of the above subjects, the following three points are the goals to be achieved.
1) You can try to communicate with others.
2) You can try to listen to others.
3) You can try to look back on yourself.

Rubric

	Excellent	Good	Insufficient
Achievement 1	Be able to communicate with others.	Try to communicate with others.	Don't try to communicate with others.
Achievement 2	Be able to listen to others.	Try to listen to others.	Don't listen to others.
Achievement 3	Be able to look back on yourself.	Try to look back on yourself.	Don't look back on yourself.

Assigned Department Objectives

Teaching Method

Outline	At KOSEN, which are higher education institutions, it is necessary to "set up their own problems and find the right solutions for them". The purpose of this class is to acquire basic skills in learning at KOSEN through a series of processes of learning and learning about oneself and others, working on problem solving as a team, and creating "answers".
Style	You will learn various ways of exploring through individual work and group work. The grade evaluation is judged by the deliverables of group work and individual work in the lecture. In addition, evaluation points are evaluated in each deliverable, such as the expressive power transmitted to the other party, the logical thinking ability to organize the path to the answer that you gave, and the introspective ability to reflect on your thoughts after receiving the other person's feedback. The four faculty members in charge of the class plan will share the lecture.
Notice	Students who miss 1/4 or more of classes will not be eligible for evaluation. Classes are developed using a participatory learning method, focusing on discussions between students. By speaking out your own ideas and listening carefully to the voices of others, learning becomes richer. For this reason, it is necessary to actively participate in the process of creating a place of learning together. The overall evaluations will be based 40% on reports, 20% on presentations and feedback, and 40% on in-class assignments. Students who achieve 60% or above can pass the course.

Characteristics of Class / Division in Learning

☑ Active Learning	☑ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Orientation (All instructors)	To understand the outline and purpose of the course.
		2nd	Introduce yourself & get to know each other (Takeda and Araki)	To learn about the students who take this course together.
		3rd	Scientific writing (Takeda)	Can appropriately cite the underlying paper and make a sentence consisting of introductions, mains, and conclusions to show their claims.
		4th	Basic of problem definition (Takeda)	Can propose a solution to the problem using the idea method after defining the problem by the present state and the clear culture of the target.
		5th	Application of problem definition (Araki)	Can examine problem definitions and solutions based on interviews with others by utilizing problem definition technology and ideas
		6th	Communication ① (Araki)	Can understand and practice the techniques of listening and questioning necessary for interactive communication.
		7th	Communication ② (Ando)	Can understand and practice the discussion methods necessary to discuss various issues and issues.
		8th	Teamwork ① (Hirano)	To practice learning with your peers.
	2nd Quarter	9th	Teamwork ② (Hirano)	To practice problem solving as a team.
		10th	Question without the answer: Society① (Araki)	Can understand the various methods for analyzing objects in a complex and uncertain society.
		11th	Question without the answer: Society② (Araki)	Can understand the concept of creating value in a society with high complexity and uncertainty.

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

Evaluation Method and Weight (%)

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

Akashi College	Year	2023	Course Title	Music-1

Course Information

Course Code	5120	Course Category	General / Elective
Class Format	Skill	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	①歌いやすい合唱曲の楽譜 ②コードネームに関するプリント ③音楽 I Tutti+(教育出版)		
Instructor	IZUMI Yuka		

Course Objectives

1. 発声と合唱の基礎を習得し、実践できる。
2. コードネームの基礎を習得している。
3. リコーダーの基礎を習得し、実践できる。
4. 音楽的なパフォーマンスについて企画・実践できる。

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	発声と合唱の基礎を十分に習得し、自在に実践できる。	発声と合唱の基礎を習得し、実践できる。	発声と合唱の基礎を習得・実践ができない。
評価項目2	コードネームの基礎を十分に習得している。	コードネームの基礎を習得している。	コードネームの基礎を習得できない。
評価項目3	リコーダーの基礎を十分に習得し、自在に実践できる。	リコーダーの基礎を習得し、実践できる。	リコーダーの基礎を習得・実践できない。
評価項目4	音楽的なパフォーマンスについて的確に企画・実践できる。	音楽的なパフォーマンスについて企画・実践できる。	音楽的なパフォーマンスについて企画・実践できない。

Assigned Department Objectives

Teaching Method

Outline	音楽を通して自分自身を表現する喜びを知る。ちまたに溢れる使い捨ての音楽だけでなく、時代を経ても生き残る本物の「音楽」を洋の東西を問わず体験する。
Style	授業は主として音楽表現の実技形式で進める。 連絡員：ハーバート ジョン
Notice	テキストや楽曲はレベルの高いものもあります。丁寧かつ真剣に練習しなければ達成感を得ることができません。また「音」を扱う科目なので不要な私語は慎むこと。リコーダー(全員)・ピアニカ(もしあれば)を用意すること。 評価の対象としない欠席条件(割合) 1/4以上の欠課。 実務経験：声楽家として国内外でのリサイタルやオーケストラとの共演があり、その経験を活かして、学生に音楽上の具体的かつ最新の情報でもって指導できる。

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	パート分け、グループ分け、ストレッチ、発声練習、簡単な2声の曲を歌ってみる	簡単な2声の曲が歌える。
		2nd	合唱のためのエチュードⅠ	ピアノ伴奏の付いた簡単な曲が歌える。
		3rd	合唱のためのエチュードⅡ	ピアノ伴奏の付いた簡単な曲が歌える。
		4th	コードネームの基礎Ⅰ	最も簡単な3和音を理解する。
		5th	合唱のためのエチュードⅢ	2声部または3声部のJ・POPを合唱できる。
		6th	合唱のためのエチュードⅣ	小人数でも音程が正しくとれるようになる。
		7th	合唱のためのエチュードⅤ	小人数でもハーモニーが美しく響かせられるようになる。
		8th	コードネームの基礎Ⅱ	コードネームの練習と小テストグループ発表のための最終練習。
	2nd Quarter	9th	合唱のためのエチュードⅥ	グループ発表のための最終練習。
		10th	合唱のためのエチュードⅦ	グループ発表し、自己満足ではなく人に何かを伝えられるようになる。
		11th	リコーダーの基礎Ⅰ	リコーダーの魅力を再発見する!
		12th	リコーダーの基礎Ⅱ	簡単な合奏曲を吹ける。
		13th	実技テストのための企画・練習Ⅰ	自分の得意分野での自由な音楽パフォーマンスを企画する。
		14th	実技テストのための企画・練習Ⅱ	自分の得意分野での自由な音楽パフォーマンスを企画・練習する。
		15th	実技テスト兼「クラス発表会」	実技テスト兼「クラス発表会」
		16th	期末試験実施せず	

Evaluation Method and Weight (%)

	出席状況	平常点	実技テスト	歌またはリコーダー小テスト	コードネーム小テスト	Total
Subtotal	10	15	35	20	20	100
基礎的能力	10	8	25	20	20	83
専門的能力	0	0	0	0	0	0

分野横断的能力	0	7	10	0	0	17

Akashi College	Year	2023	Course Title	Music-2

Course Information

Course Code	5121	Course Category	General / Elective
Class Format	Skill	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	Music I Tutti+(Kyoiku-Shuppan, Co.). Various sheet music and other printouts will also be distributed in class.		
Instructor	IZUMI Yuka		

Course Objectives

1. Acquire and practice the basics of vocalization and chorus.
2. Master the basics of chord names.
3. Learn the basics of the recorder flute and practice them.
4. Plan and practice musical performance.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	The student acquired and practiced the basics of vocalization and chorus well.	The student acquired and practiced the basics of vocalization and chorus.	The student did not acquire or practice the basics of vocalization and chorus.
Achievement 2	The student mastered the basics of chord names well.	The student mastered the basics of chord names.	The student did not master the basics of chord names.
Achievement 3	The student well acquired the basics of the recorder flute and practiced them.	The student acquired the basics of the recorder flute and practiced them.	The student did not acquire the basics of the recorder flute or practice them.
Achievement 4	The student could plan and practice musical performances well.	The student could plan and practice basic musical performances.	The student could not plan or practice musical performances.

Assigned Department Objectives

Teaching Method

Outline	To know the joy of expressing yourself through music. Experience not only disposable music, but also genuine “music” that has survived times regardless of its eastern or western origins.
Style	Practical classes of music expression.
Notice	Some texts and songs are difficult to play. The student will not earn a sense of accomplishment without careful and serious practice. Also, since this course deals with “sound”, refrain from unnecessary private talk. Prepare recorder flutes (all) and pianica flutes (for those who have them). Students who miss 1/4 or more of classes will not be eligible for evaluation. Practical experience: The instructor is an experienced vocalist. She has co-starred in recitals and orchestras in Japan and overseas, and can use her experience to teach students with specific and up-to-date information on music.

Characteristics of Class / Division in Learning

☑ Active Learning	☐ Aided by ICT	☑ Applicable to Remote Class	☑ Instructor Professionally Experienced

Course Plan

			Theme	Goals
2nd Semester	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	Vocal/Flute	Chord Test	Other	Total
Subtotal	10	15	35	20	20	0	100
Basic Proficiency	10	8	25	20	20	0	83
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	7	10	0	0	0	17

Akashi College	Year	2023	Course Title	Art-1

Course Information

Course Code	5122	Course Category	General / Elective
Class Format	Skill	Credits	School Credit: 1
Department	Civil 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 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 C. Herbert
Notice	This subject is taught by a teacher who has been practicing town development for many years through his art work and writing activities as a contemporary art writer. Applying his experiences to practical lessons, he questions what art really means. This course requires individuals to take their own initiative. Students are required to create art with a motivated attitude. A F6-size sketchbook is used in classes. Do not forget things like tools. Tidying and cleaning up the classroom after lessons are mandatory. Students who miss 1/4 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☑ Active Learning	☐ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Explaining the class content, tools, appreciation of works of art, assignments for the next class	
		2nd	Sketching 1	To draw Sketch 1.
		3rd	Sketching 2	To draw Sketch 2.
		4th	Sketching 3	To draw Sketch 3.
		5th	Sketching 4	To draw Sketch 4.
		6th	Sketching 5	To draw Sketch 5.
		7th	Sketching 6	To draw Sketch 6.
		8th	Abstract expression using color materials (image of nature 1)	To express things in an abstract art form using color materials.
	2nd Quarter	9th	Abstract expression using color materials (image of nature 2)	To express things in an abstract art form using color materials.
		10th	Abstract expression using color materials (image of nature 3)	To express things in an abstract art form using color materials.
		11th	Abstract expression using color materials (image of nature 4)	To express things in an abstract art form using color materials.
		12th	Group work / explaining the assignment for the next class	To comment on works expressed in an abstract form in a group.
		13th	Figure (replicating skeletal frame 1)	To draw replicating skeletal frame of figure.
		14th	Figure (croquis drawing 1)	To draw croquis.
		15th	Figure (croquis drawing 2)	To draw croquis.
		16th	No final exam	

Evaluation Method and Weight (%)

	Practical skill production	Attendance・Behavior	Total
Subtotal	80	20	100
Basic Proficiency	80	20	100

Specialized Proficiency	0	0	0
Cross Area Proficiency	0	0	0

Akashi College	Year	2023	Course Title	Art-2

Course Information

Course Code	5123	Course Category	General / Elective
Class Format	Skill	Credits	School Credit: 1
Department	Civil 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	2023	Course Title	Introduction to Civil Engineering

Course Information

Course Code	5128	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	TAKEDA Naho		

Course Objectives

1. Can explain civil engineering.
2. Can explain examples of social infrastructure facilities.
3. Can make a brief presentation about civil engineering.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can fully explain civil engineering using technical language	Can briefly explain civil engineering using technical language	Cannot explain civil engineering using technical language
Achievement 2	Can fully explain social infrastructure facilities using technical language	Can briefly explain social infrastructure facilities using technical language.	Cannot explain social infrastructure facilities using technical language
Achievement 3	Can make a presentation about civil engineering using technical language	Can make a brief presentation about civil engineering.	Cannot make a brief presentation about civil engineering.

Assigned Department Objectives

Teaching Method

Outline	Students will gain understanding that civil engineering enriches the lives of the people, improves their welfare, and deeply involved in the daily lives of citizens.
Style	Classes will be conducted using a blackboard and a projector. In the lectures, terms, words in English, etc. that need memorizing will be explained. Students must review each class to fully acquire the knowledge.
Notice	This is the first step to getting into the professional area of engineering, using the basic knowledge of science and mathematics which have been acquired in advance. Therefore, it is appropriate for students to seek professional academic book for anything that they find interesting. 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	About civil engineering (1)	Can explain civil engineering.
		2nd	About civil engineering (2)	Can explain what type of engineering civil engineering is
		3rd	The first step towards structures and bridges (1)	Understand the role and history of bridges
		4th	The first step towards structures and bridges (2)	Understand forms and structures of bridges
		5th	The first step towards waterway and shore technologies (1)	Understand the water circulation, role of rivers, water utilization and water control, and river environment
		6th	The first step towards waterway and shore technologies (2)	Understand the role and environment of the sea
		7th	The first step towards ground and soil (1)	Understand the properties of soil
		8th	The first step towards ground and soil (2)	Understand the ground subsidence and environment
	2nd Quarter	9th	Midterm exam	
		10th	The first step towards construction material (1)	Understand construction materials (soil, stone, wood, metal, concrete, asphalt)
		11th	The first step towards construction material (2)	Can make presentations on construction materials
		12th	The first step towards urban planning (1)	Understand social infrastructure facilities that are necessary for urban planning
		13th	The first step towards urban planning (2)	Can make presentations on urban planning
		14th	The first step towards environmental issues (1)	Understand environmental issues related to water, soil, air, noise, and vibration
		15th	The first step towards environmental issues (2)	Can make presentations on civil engineering and environment
		16th	Final exam	

Evaluation Method and Weight (%)

	Exams	Presentation	Reports	Effort status for classes	Total
Subtotal	40	30	20	10	100
Basic Proficiency	20	10	10	0	40

Specialized Proficiency	20	10	10	0	40
Cross-Disciplinary Proficiency	0	10	0	10	20

Akashi College	Year	2023	Course Title	Introduction of Computer Application

Course Information

Course Code	5129	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Teamsを使って課題や資料を配布する。ネットを利用して情報を収集する。		
Instructor	HIRAISHI Toshihiro		

Course Objectives

学内におけるインターネット利用方法を理解し、情報社会における様々なルールを考えながら行動できる。
プレゼンテーションソフト、動画作成ソフトを使って自己紹介動画を作成できる.

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	プレゼンテーションソフトを使った発表資料作成および発表が適切にできる。	プレゼンテーションソフトを使った発表資料作成および発表ができる。	プレゼンテーションソフトを使った発表資料作成および発表ができない。
評価項目2	情報社会をより良くするために何をしたらよいか、周りの人と話し合える。情報社会ではどのような問題が起きるのか、起きたときの対処方法について自分の意見を話すことができる。	情報社会をより良くするために何をしたらよいか行動できる。情報社会ではどのような問題が起きるのか、起きたときの対処について行動できる。	情報社会をより良くするために何をしたらよいか理解できない。情報社会ではどのような問題が起きるのか、起きたときの対処について理解できない。
評価項目3	情報伝達システムやインターネットの基本的な仕組みを適切に把握している。	情報伝達システムやインターネットの基本的な仕組みを把握している。	情報伝達システムやインターネットの基本的な仕組みを把握していない。

Assigned Department Objectives

Teaching Method

Outline	現代社会においてパソコンを使用しての文書作成や表計算、インターネットや電子メールを使う能力は必要不可欠である。本授業ではパソコンの基礎知識およびプレゼンテーション用ソフト操作を学習する。また情報を処理･活用する上で重要な情報倫理･セキュリティも学ぶ。メールの使い方、プレゼンテーションソフトの使い方を習得する。
Style	授業の進め方と授業内容・方法: 情報処理演習室のPCを用いた解説および実習を主とする。適宜レポートを課す。
Notice	パスワード管理、SNSの利用上の注意 評価の対象としない欠席条件(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	学内におけるネット利用方法。情報社会での問題点と対応（学科共通）	学内におけるネット利用方法を理解し、情報社会での問題点と対応ができる。
		2nd	パソコンの仕組み、BIOS、OS、ソフトの構成、パソコンの起動、ユーザー名、パスワード、ログイン、シャットダウン	コンピュータのハードウェア、ソフトウェアに関する基礎的な知識を活用できる。
		3rd	Teamsの使用方法、電子メールの受信・閲覧・作成。送信、添付ファイルの使い方 誤送信防止のためTeams アイコンの変更。	個人情報とプライバシー保護の考え方についての基本的な配慮ができる。
		4th	自己紹介動画の作製方法の説明と作成	パワーポイントやムービーメーカーなどのソフトを使って 自己紹介動画を作る方法について理解する。
		5th	自己紹介動画の作製	各種ソフトを使って動画が編集できる。目的や対象者に応じて適切なツールや手法を用いて正しく情報発信(プレゼンテーション)できる。
		6th	自己紹介動画の作製	各種ソフトを使って動画が編集できる。目的や対象者に応じて適切なツールや手法を用いて正しく情報発信(プレゼンテーション)できる。
		7th	自己紹介動画の作製	各種ソフトを使って動画が編集できる。目的や対象者に応じて適切なツールや手法を用いて正しく情報発信(プレゼンテーション)できる。
		8th	クラスメイトの自己紹介動画の鑑賞	クラスメイトの自己紹介動画を鑑賞し、優れた表現方法を理解する。
	2nd Quarter	9th	クラスメイトの自己紹介動画の鑑賞	クラスメイトの自己紹介動画を鑑賞し、優れた表現方法を理解する
		10th	Excelを使った統計処理演習問題	エクセルを使って、簡単な統計処理ができる。
		11th	Excelを使った統計処理演習問題	エクセルを使って、簡単な統計処理ができる。
		12th	セキュリティ問題	個人情報とプライバシー保護の考え方についての基本的な配慮ができる。
		13th	ネットワークの基本	ネットワークの基本を理解し、情報社会での問題点と対応ができる。
		14th	過去問題の演習 1	情報技術の進展が社会に及ぼす影響、個人情報保護法、著作権などの法律について説明できる。

		15th	過去問題の演習 2	情報技術の進展が社会に及ぼす影響、個人情報保護法、著作権などの法律について説明できる。
		16th	前期末試験	情報基礎での学習内容を理解している。

Evaluation Method and Weight (%)

	自己紹介動画	試験					Total
Subtotal	50	50	0	0	0	0	100
基礎的能力	0	0	0	0	0	0	0
専門的能力	50	50	0	0	0	0	100
分野横断的能力	0	0	0	0	0	0	0

Akashi College	Year	2023	Course Title	Foundamental Drawing of Civil Engineering

Course Information

Course Code	5130	Course Category	Specialized / Compulsory
Class Format	講義・演習	Credits	Academic Credit: 2
Department	Civil Engineering	Student Grade	1st
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	A, Koda : Drawing and drafting, Baifu-kan Publishing Co., Ltd., Japan Society of Civil Engineers : Standards for drawing of infrastructures		
Instructor	UESUGI Shuetsu		

Course Objectives

This subject aims to help students understand as follows:
1. The types of lines and letters in drawing
2. Drawing method of plans and projections
3. Layout, size, title field, dimension and dimension lines of a figure

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1: The types of lines and letters in drawing	A student who can exactly explain about the types of lines and letters in drawing	A students who can explain about the types of lines and letters in drawing	A student who cannot explain about the types of lines and letters in drawing
Achievement 2: Layout, size, title field, dimension and dimension lines of a figure	A student who can exactly explain about layout, size, title field, dimension and dimension lines of a figure	A student who can explain about layout, size, title field, dimension and dimension lines of a figure	A student who can explain about layout, size, title field, dimension and dimension lines of a figure
Achievement 3: Drawing method of plans and projections	A student who can exactly explain about drawing method of plans and projections	A student who can explain about drawing method of plans and projections	A student who cannot explain about drawing method of plans and projections

Assigned Department Objectives

Teaching Method

Outline	Lecturer of this subject has an experience as a technical staff of Kobe city office. He engaged in design and drawing of several infrastructures such as a road, bridge, park, tunnel and dam. He conducts a lecture and an exercise about fundamentals on drawing and drafting based on his experiences. Therefore, students can learn about drawing fundamentals in civil engineering.
Style	This subject is proceeded lecture and practice in parallel. Liaison to the part-time lecture: Ikuta, Department of Civil Engineering
Notice	Students need to prepare their drawing instruments and a review is important, because practice in drawing and drafting is conducted in every class. This subject has a content the summation of learning time guaranteed in class and standard self-learning time including required time for preparing preparation, review, and assignment corresponds 90 hours. 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 and explanation of drawing instruments	Students can understand how to use drawing instruments.
		2nd	Fundamentals of drawing (1)	Students can explain about the types of lines and letters in drawing.
		3rd	Fundamentals of drawing (2)	Students can explain about the types of lines and letters in drawing.
		4th	Practice (1)	Students can explain about layout, size, title field, dimension and dimension lines of a figure.
		5th	Practice (2)	Students can explain about layout, size, title field, dimension and dimension lines of a figure.
		6th	Practice (3)	Students can explain about layout, size, title field, dimension and dimension lines of a figure.
		7th	Practice (4)	Students can explain about layout, size, title field, dimension and dimension lines of a figure.
		8th	Fundamentals of drawing (3)	Students can explain about the types of lines and letters in drawing.
	4th Quarter	9th	Practice (5)	Students can explain about layout, size, title field, dimension and dimension lines of a figure.
		10th	Practice (6)	Students can explain about layout, size, title field, dimension and dimension lines of a figure.
		11th	Practice (7)	Students can explain about layout, size, title field, dimension and dimension lines of a figure.
		12th	Positive projection (1)	Students can explain how to draw plans and projections.
		13th	Positive projection (2)	Students can explain how to draw plans and projections.

		14th	Positive projection (3)	Students can explain how to draw plans and projections.
		15th	Positive projection (4)	Students can explain how to draw plans and projections.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	30	70	0	0	0	0	100
Basic Proficiency	20	40	0	0	0	0	60
Specialized Proficiency	10	30	0	0	0	0	40
Cross Area Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2023	Course Title	Surveying I

Course Information

Course Code	5131	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Textbook:測量入門(大杉和由, 福島博行:実教出版)		
Instructor	IKUTA Ami		

Course Objectives

1) Can explain the distance surveying conducted on level ground or on an inclined ground, and can calculate using the results of the survey.
2) Can explain single measurement method, measurement of angle by repetition, and direction method. Can calculate using the results of the survey.
3) Can explain direct leveling method that uses lifting type or instrumental height system. Can calculate using the results of the survey.
4) Can calculate the area or the volume using the results of the survey.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can fully explain the distance surveying and calculate using the results of the survey.	Can explain the distance surveying, and calculate using the results of the survey.	Cannot explain the distance surveying, or calculate using the results of the survey.
Achievement 2	Can fully explain method of single measurement, measurement of angle by repetition, and direction method. Can calculate using the results of the survey.	Can explain method of single measurement, measurement of angle by repetition, and direction method. Can calculate using the results of the survey.	Cannot explain method of single measurement, measurement of angle by repetition, and direction method. Cannot calculate using the results of the survey.
Achievement 3	Can fully explain direct leveling method that uses lifting type, or instrumental height system. Can calculate using the results of the survey.	Can explain direct leveling method that uses lifting type, or instrumental height system. Can calculate using the results of the survey.	Cannot explain direct leveling method that uses lifting type, or instrumental height system. Cannot calculate using the results of the survey.
Achievement 4	Can fully calculate the area or the volume using the results of the measurement.	Can calculate the area or the volume using the results of the measurement.	Cannot calculate the area or the volume using the results of the measurement.

Assigned Department Objectives

Teaching Method

Outline	Lectures will be carried out mainly on basic surveying, concept of surveying, method of surveying, the relationship between theoretical background and mathematical knowledge of surveying, and on error and accuracy.
Style	Classes will be conducted in a lecture style in line with the textbook. Practice questions will be given as appropriate to check the students' understanding, and report assignments will be given to deepen their understanding. The overall evaluation will be based on 60% on written exams, 30% on assignments, and 10% on attitude toward class activities. The minimum score for a pass will be 60%.
Notice	Bring your scientific calculator. This course 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 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	About studying surveying	Can explain the significance of studying surveying and its need in the civil engineering field.
		2nd	Distance survey (Eslon tape measure, steel scale, measurement by pace)	Can explain distance survey that uses Eslon tape measure, steel scale, or measurement by pace.
		3rd	" (electro-optical distance measuring instrument, error)	Can explain error due to distance surveying that uses electro-optical and radio waves, tape measures, etc.
		4th	Angle measurement (structure and reading of transits and total stations)	Can explain the structure and reading of transits and total stations.
		5th	" (single measurement method)	Can explain angle measurement using single measurement method. Can use them to calculate.
		6th	" (survey using direction method)	Can explain angle measurement using direction method. Can calculate using them.
		7th	" (survey using direction method and vertical angle)	Can explain angle measurement using direction method and vertical angle. Can calculate using them.
		8th	" (angle setting and error)	Can explain the handling of errors due to angle measurement.

	2nd Quarter	9th	Leveling (datum level, classification, instrument and equipment)	Can explain datum level, classification, instrument and equipment for leveling.
		10th	" (inspection, adjustment, and lifting type)	Can explain lifting type for leveling. Can use it to calculate.
		11th	" (instrumental height system, indirect measuring)	Can explain instrumental height system and indirect measuring for leveling. Can use them to calculate.
		12th	" (reciprocal leveling, cross leveling, precise leveling, error)	Can explain reciprocal leveling, cross leveling, precise leveling, and error for leveling.
		13th	Calculate area (coordinates and triangular division method)	Can explain coordinates and triangular division method to calculate the area. Can use them to calculate.
		14th	" (line offset method, planimeter method)	Can explain line offset method and planimeter method to calculate the area. Can use them to calculate.
		15th	Mass calculation (cross-section method, mesh method, contour method)	Can explain cross-section method, mesh method, and contour method for mass calculation. Can use them to calculate.
		16th	Final exam	

Evaluation Method and Weight (%)

	Examination	Assignments	Mutual Evaluations	Attitude	Portfolio	Other	Total
Subtotal	60	30	0	10	0	0	100
Basic Proficiency	10	10	0	5	0	0	25
Specialized Proficiency	40	10	0	0	0	0	50
Cross-Disciplinary Proficiency	10	10	0	5	0	0	25

Akashi College	Year	2023	Course Title	Practice of Surveying

Course Information

Course Code	5132	Course Category	Specialized / Compulsory
Class Format	Practical training	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	1st
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Handouts		
Instructor	IKUTA Ami,YEGANE GHEZELLOO		

Course Objectives

1) Understand distance survey and can measure using equipment.
2) Understand angle measurement and can measure using equipment.
3) Understand leveling and can measure using equipment.
4) Can summarize results from practical trainings and reflect on them.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Fully understand distance survey and can measure using equipment.	Understand distance survey and can measure using equipment.	Do not understand distance survey and cannot measure using equipment.
Achievement 2	Fully understand angle measurement and can measure using equipment.	Understand angle measurement and can measure using equipment.	Do not understand angle measurement and cannot measure using equipment.
Achievement 3	Fully understand leveling and can measure using equipment.	Understand leveling and can measure using equipment.	Do not understand leveling measurement and cannot measure using equipment.
Achievement 4	Can summarize results from practical trainings and appropriately reflect on them.	Can summarize results from practical trainings and reflect on them.	Cannot summarize results from practical trainings or reflect on them.

Assigned Department Objectives

Teaching Method

Outline	Students will experience theories of field survey through practical trainings.
Style	This course will be conducted by more than one faculty member, in practical trainings and exercise styles. The overall evaluation will be based on 70% on the submission of reports and other assignments, and 30% on attitude toward class activities. The minimum score for a pass will be 60%. However, in cases where reports., etc. are inadequate, students must re-submit them, or will be given 59 points or less for their evaluation.
Notice	Students must wear clothing (laboratory attire) and shoes (running shoes) that are appropriate for practice. Commit to the basics and measure accurately, with an understanding of the purpose. Fulfill one's role in a cooperative work and be attentive to safety. Course content and time are subject to change depending on weather conditions. Students who miss 1/5 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	Frame of mind for practical trainings, and how to write reports	Understand the frame of mind for practical trainings, and can explain how to write a report.
		2nd	Distance survey (measurement by pace)	Can conduct distance survey measuring distance by pace.
		3rd	" (steel tape distance measuring)	Can conduct distance survey measuring distance using steel tape.
		4th	" (report writing)	Can summarize results from practical trainings and reflect on them.
		5th	Angle measurement (practice installing and reading total stations)	Can install and read total stations.
		6th	" (single measurement method)	Can conduct angle measurement using single measurement method.
		7th	" (single measurement method and direction method)	Can conduct angle measurement using single measurement method and direction method.
		8th	" (practice direction method and theodolite)	Can conduct angle measurement using direction method.
	2nd Quarter	9th	" (report writing)	Can summarize results from practical trainings and reflect on them.
		10th	Leveling (lifting type)	Can conduct leveling using lifting type.
		11th	" (lifting type and instrumental height system)	Can conduct leveling using lifting type and instrumental height system.
		12th	" (instrumental height system)	Can conduct leveling using instrumental height system.
		13th	Drawing and exercise (calculation of area)	Can calculate the area using drawings.
		14th	" (area and mass calculation)	Can calculate the area and mass using drawings.

		15th	" (planimeter)	Can explain how to calculate the area using a planimeter.
		16th	No final exam	

Evaluation Method and Weight (%)

	Examination	Report Assignments	Mutual Evaluations	Attitude	Portfolio	Other	Total
Subtotal	0	70	0	30	0	0	100
Basic Proficiency	0	10	0	10	0	0	20
Specialized Proficiency	0	50	0	10	0	0	60
Cross-Disciplinary Proficiency	0	10	0	10	0	0	20

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	Civil 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	Civil 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	Mathematics Ⅱ A-1

Course Information

Course Code	6205	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 2
Department	Civil Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	4
Textbook and/or Teaching Materials	Differential and Integral I (Dai Nihon Tosho)		
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.

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.

Assigned Department Objectives

Teaching Method

Outline	Students will learn one-variable derivative and integral as the basis of the calculus.
Style	Students are asked to prepare for the class with video clips according to the syllabus. Students will be asked to study in groups during class to check their level of understanding. Bilingual classes may be offered.
Notice	Review your work before class. Do not leave anything you do not understand unanswered, but ask questions. Study independently by using problem collections. CBT will be given in one of the weeks. Students who miss 1/3 or more of classes will not be eligible for evaluation.

Characteristics of Class / Division in Learning

☑ Active Learning	☑ Aided by ICT	☑ Applicable to Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Limits and derivatives of functions	Can find the limit of a function.
		2nd	Limits and derivatives of functions	Can find the infinite limit of a function.
		3rd	Derivatives of functions	Can understand the definition of derivatives of functions and perform simple calculations.
		4th	Derivatives of functions	Can find derivatives of products and quotients of functions.
		5th	Derivatives of various functions	Can find derivatives of composite and trigonometric functions.
		6th	Derivatives of various functions	Can find derivatives of exponential and inverse functions.
		7th	Derivatives of various functions	Can find derivatives of inverse trigonometric functions and investigate continuity of functions.
		8th	Function Variation	Can find equations for tangent and normal lines and examine the increase or decrease of a function.
	2nd Quarter	9th	Function Variation	Can draw graphs of various functions and find the maximum and minimum values of functions.
		10th	Function Variation	Can find the limit of an indefinite form and use derivatives to prove inequalities.

		11th	Various applications of the derivative	Can find higher derivatives and examine the concavity and convexity of graphs.
		12th	Various applications of the derivative	Can find derivatives of functions by parameter representation and can find velocity and acceleration.
		13th	Various applications of the derivative	Can use derivatives to obtain approximate values.
		14th	Indefinite and definite integrals	Can find indefinite integrals.
		15th	Calculation of integrals	Can use the substitution integral method.
		16th	Exam	Confirmation of the studies.

Evaluation Method and Weight (%)

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

Akashi College	Year	2024	Course Title	Mathematics Ⅱ A-2

Course Information

Course Code	6206	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 2
Department	Civil Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	4
Textbook and/or Teaching Materials	differentials and integrals I		
Instructor	MATSUMIYA Atusi,OMODA Yasuhiro		

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 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 integral as the basis of the calculus.
Style	Lessons by lecture and practice-type, timely assignments, quizzes, etc.
Notice	CBT will be carried out in a certain week. Students can not obtain a passing grade if they miss 1/3 or more of classes.

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	Indefine and definite integrals	Can find indefinite integrals.
		2nd	Indefine and definite integrals	Can find definite integrals.
		3rd	Computing integrals	Can find the integrals using substitution.
		4th	Computing integrals	Can find the integrals using parts.
		5th	Computing integrals	Can find the integrals using partial fractions.
		6th	Exercise	Exercise
		7th	Applications of integral	Can find the area of figures.
		8th	Applications of integral	Can find the length of curves.
	4th Quarter	9th	Applications of integral	Can find the volume and surface area of solids.
		10th	Applications of integral	Can check the outline of figures by parametric and polar curves.
		11th	Applications of integral	Can find the value of the improper integrals and the rate of changes
		12th	First order differential equations	Can solve separable and homogeneous differential equations.

		13th	First order differential equations	Understand the model of differential equations and the meaning of directional fields.
		14th	Exercise	Exercise
		15th	Summary	Review / development
		16th		

Evaluation Method and Weight (%)

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

Akashi College	Year	2024	Course Title	Mathematics Ⅱ B-1

Course Information

Course Code	6207	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil 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	Civil 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 B-1

Course Information

Course Code	6211	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	2nd
Term	First 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、アース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
1st Semester	1st Quarter	1st	オリエンテーション：化学を学ぶに際して	化学の有用性と身近なモノとの関わりを理解し、説明できる。化学物質の有効性と生体や環境へのリスクを理解し、説明できる。
		2nd	物質の構成－１：純物質と混合物	純物質と混合物の性質を理解し、説明できる。
		3rd	物質の構成－２：元素、物質の三態	物質を構成する元素、物質の三態、状態変化を理解し、説明できる。
		4th	物質の構成－３：原子の性質	原子について、電子配置、周期表、同位体を理解し、説明できる。
		5th	化学結合－1：イオンの性質とイオン化エネルギー	イオンの性質、イオン化エネルギーについて理解し、説明できる。
		6th	化学結合－2：イオン結合とイオン結晶	イオン結合、イオン結晶について理解し、説明できる。
		7th	化学結合－3：分子、共有結合、配位結合	電子のふるまいと金属結合、金属の性質および化学結合について理解し、説明できる。
		8th	化学結合－4：金属結合、化学結合	1stQで学習した基本事項について説明や計算ができる。
	2nd Quarter	9th	物質の構成、化学結合に関してのまとめ 地学1,地学2	物質の構成、化学結合結合に関する基本事項について理解し、基礎的な問題を解くことができる。アースサイエンスに関するいくつかのトピックについて理解し、開設できる。
		10th	化学反応式と反応量の関係－１：原子量、分子量、式量	原子量・分子量・式量を理解し、説明できる。
		11th	化学反応式と反応量の関係－２：モル質量	物質量に関連してmol、モル質量を理解し、計算できる。
		12th	化学反応式と反応量の関係－３：溶液の濃度	溶液の濃度について、モル濃度、質量パーセント濃度を理解し、計算できる。
		13th	化学反応式と反応量の関係－４：化学反応式とイオン反応式	化学反応式やイオン反応式を理解し、説明できる。

		14th	化学反応式と反応量の関係－５：反応式の量的関係	化学反応式の量的関係を説明でき、必要な計算ができる。
		15th	化学反応式と反応量の関係－６	化学反応式に関する基礎問題を解くことが出来る。
		16th	期末試験	前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	Science Ⅱ B-2

Course Information

Course Code	6212	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil 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	Civil 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	Civil 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	Civil 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	Civil 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	Ｃｏ＋ｗｏｒｋＩＡ

Course Information

Course Code	6219	Course Category	General / Compulsory
Class Format	Seminar	Credits	School Credit: 1
Department	Civil 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	Civil 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	Mathematics Certification I

Course Information

Course Code	6222	Course Category	General / Elective
Class Format	その他	Credits	School Credit: 1
Department	Civil 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	Information Processing I

Course Information

Course Code	6226	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Civil Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	WATANABE Moriyoshi		

Course Objectives

1) Can do description statistics such as data aggregation and visualization.
2) Can predictive statistics such as predictive analysis by regression analysis of data.
3) Can collect and analyze open data and summarize it as a report.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Can do description statistics such as data aggregation and visualization to purpose.	Can do description statistics such as data aggregation and visualization	Cannot do description statistics such as data aggregation and visualization
Achievement 2	Can predictive statistics to purpose such as predictive analysis by regression analysis of data to purpose.	Can predictive statistics such as predictive analysis by regression analysis of data	Cannot predictive statistics such as predictive analysis by regression analysis of data
Achievement 3	Can collect and analyze to purpose open data and summarize it as a report to purpose.	Can collect and analyze open data and summarize it as a report	Cannot collect and analyze open data and summarize it as a report

Assigned Department Objectives

Teaching Method

Outline	In this course, students will learn the basic knowledge and skills necessary to create reports and scientific and technical documents through exercises using software documents, spreadsheets, and presentations.
Style	Classes will be mainly conducted through exercises using slides and e-learning portals on a PC in the computer lab.
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 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	Class guidance and basic computer operation	Determine the level of understanding for information ethics and information security. Can explain the objectives of the course and perform basic computer operation.
		2nd	Basic operation of spreadsheet software	Can perform basic operation of spreadsheet software. and exercises.
		3rd	Discription Statistics 1 Data feature extraction	Can calculate averages, medians, etc used Excel functions
		4th	Discription Statistics 2 Data visualization	Can create graphs used Execl.
		5th	Conditional branch instruction	Can perform calculations using conditional branch instructions.
		6th	Survey data result organization and visualization 1	Leveling survey results can be organized and graphed using spreadsheet software.
		7th	Survey data result organization and visualization 2	Leveling survey results can be organized and graphed using spreadsheet software.
		8th	Estimation statistics 1 Feature extraction oftwo-variable data	Understand how to extract features between two-variable data
	4th Quarter	9th	Estimation statistics 2 correlation coefficient	Correlation coefficient of two-variable data can be performed.
		10th	Estimation statistics 3 regression analysis	Regression analysis of two-variable data can be performed.
		11th	Use of Open Data	Acquire appropriate open data for the task and summarize it in spreadsheet software.
		12th	Analysis of Open Data	Analyze the data obtained to achieve the purpose of the task using the learned knowledge.
		13th	Preparation of presentation materials	Can create presentation materials to achieve purpose.
		14th	Presentation 1	Can presentation to achieve purpose.
		15th	Presentation 2	Can presentation to achieve purpose.
		16th		

Evaluation Method and Weight (%)							
	Exercise	Presentations	Presentations	Attitude	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-Disciplinary Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Surveying II

Course Information

Course Code	6227	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Civil Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	IKUTA Ami		

Course Objectives

The goal is to understand and explain the principles and methods of (1) control point surveying and (2) route surveying of applied surveying, based on the premise of the acquisition of basic surveying.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand the procedures of control point surveying, and can explain the survey system (national control points, etc.).	Understand and can explain the procedures of control point surveying.	Do not understand and cannot explain the procedures of control point surveying.
Achievement 2	Understand the procedures of route surveying, have sufficient ability to calculate, and can explain.	Understand and can explain the procedures of route surveying.	Do not understand and cannot explain the procedures of route surveying.

Assigned Department Objectives

Teaching Method

Outline	For this course, lectures will be carried out on surveying techniques and topographic maps that are needed for various types of setting work, in addition to the basic theory of field surveying taught in the first year.
Style	Classes will be held in a lecture style in conjunction with surveying exercises
Notice	Make sure to gain a deeper understanding through many exercise assignments 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	Traverse surveying	Can explain method and purpose of traverse surveying.
		2nd	Traverse surveying	Can explain method and purpose of traverse surveying.
		3rd	Traverse surveying	Can explain method and purpose of traverse surveying.
		4th	Traverse surveying	Can explain method and purpose of traverse surveying.
		5th	Detail mapping	Can explain method and purpose of Detail mapping
		6th	Detail mapping	Can explain method and purpose of Detail mapping
		7th	Topographic mapping	Can explain method and purpose of Topographic mapping
		8th	Topographic mapping	Can explain method and purpose of Topographic mapping
	2nd Quarter	9th	Fundamental surbeying	Can explain the classification by the size of an area, order, method, purpose, and law. Can explain the survey system (national control points, etc.).
		10th	Fundamental surbeying	Can explain the classification by the size of an area, order, method, purpose, and law. Can explain the survey system (national control points, etc.).
		11th	Fundamental surbeying	Can explain the classification by the size of an area, order, method, purpose, and law. Can explain the survey system (national control points, etc.).
		12th	Route surveying	Can explain the simple curves, relaxation curves, and vertical curves.
		13th	Route surveying	Can explain the simple curves, relaxation curves, and vertical curves.
		14th	Route surveying	Can explain the simple curves, relaxation curves, and vertical curves.
		15th	Route surveying	Can explain the simple curves, relaxation curves, and vertical curves.

		16th	Final exam	

Evaluation Method and Weight (%)

	Exams	Presentation	Mutual Evaluations	Attitude	Portfolio	Other	Total
Subtotal	70	0	0	30	0	0	100
Basic Proficiency	50	0	0	30	0	0	80
Specialized Proficiency	20	0	0	0	0	0	20
Cross-Disciplinary Proficiency	0	0	0	0	0	0	0

Akashi College	Year	2024	Course Title	Civil Engineering Materials I

Course Information

Course Code	6228	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	教科書:図説 わかる材料-土木・環境・社会基盤施設をつくる 監修 宮川豊章、編者 岡本享久(学芸出版社)、参考書:図書館などにある建設材料に関する書籍		
Instructor	TAKEDA Naho		

Course Objectives

Understand the properties of construction materials for building social infrastructure facilities, and can select and use appropriate materials for construction

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand the properties of construction materials for building social infrastructure facilities, and can select and use appropriate materials for construction with consideration for various conditions	Understand the properties of construction materials for building social infrastructure facilities, and can select appropriate materials for construction	Do not understand the properties of construction materials for building social infrastructure facilities, and cannot select and use appropriate materials for construction

Assigned Department Objectives

Teaching Method

Outline	The goal of this course is to understand properties of construction materials for the building of social infrastructure facilities, and acquire the knowledge to select and use appropriate materials.
Style	The overall evaluations will be based 60% on periodic exams, 30% on exercises and reports, 10% on attitude toward class activities. Students who achieve 60% or above is evaluated to have the basic knowledge of construction materials, and can pass the course. The content of reports must show the level of understanding of the properties of each construction material, and must also satisfy precautions for taking this course.
Notice	Various construction materials will be introduced, and students must pre-study and review to make sure they organize their understanding. Students should put effort to understand how construction materials are used in a familiar environment. 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	Structural object of the city, and construction materials used to build them	Can explain the construction materials that construct the city
		2nd	Physical properties of construction material	Can explain the physical properties of construction materials
		3rd	Quality and standards of construction materials	Can explain the quality and standards of construction materials
		4th	Materials I Exercise 1 - 1	Understand the properties of the construction materials studied in class
		5th	Role and features of steel materials	Can explain the role and features of steel materials
		6th	Types of steel materials, and methods of manufacturing and processing	Can explain the types of steel materials, and the methods of manufacturing and processing
		7th	Materials I Exercise 1 - 2	Understand the properties of the construction materials studied in class
		8th	Types and nature of asphalt	Can explain the types and nature of asphalt
	2nd Quarter	9th	Uses of asphalt	Can explain the uses of asphalt
		10th	Materials I Exercise 1 -3	Understand the properties of the construction materials studied in class
		11th	Introduction to concrete, fresh concrete	Can explain the ingredients in concrete, and the properties of fresh concrete
		12th	Mechanical properties of hardened concrete	Can explain the mechanical properties of hardened concrete
		13th	Physical properties of hardened concrete	Can explain the physical properties of hardened concrete
		14th	Mix proportion of concrete	Can design concrete mix proportion
		15th	Materials I Exercise 1 -4	Understand the properties of the construction materials studied in class
		16th	Final exam	

Evaluation Method and Weight (%)

	Exams	Exercises and Reports	Effort status for classes	Total
Subtotal	50	40	10	100
Basic Proficiency	20	10	10	40

Specialized Proficiency	30	20	0	50
Cross-Disciplinary Proficiency	0	10	0	10

Akashi College	Year	2024	Course Title	Civil Engineering Materials Ⅱ

Course Information

Course Code	6229	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	School Credit: 1
Department	Civil Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	教科書:図説 わかる材料-土木・環境・社会基盤施設をつくる 監修 宮川豊章、編者 岡本享久(学芸出版社)		
Instructor	TAKEDA Naho		

Course Objectives

Understand the properties of construction materials for building social infrastructure facilities, and can select and use appropriate materials for construction

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand the properties of construction materials for building social infrastructure facilities, and can select and use appropriate materials for construction with consideration for various conditions	Understand the properties of construction materials for building social infrastructure facilities, and can select appropriate materials for construction	Do not understand the properties of construction materials for building social infrastructure facilities, and cannot select and use appropriate materials for construction

Assigned Department Objectives

Teaching Method

Outline	The goal of this course is to understand properties of construction materials for the building of social infrastructure facilities, and acquire the knowledge to select and use appropriate materials.
Style	The overall evaluations will be based 60% on periodic exams, 30% on exercises and reports, 10% on attitude toward class activities. Students who achieve 60% or above is evaluated to have the basic knowledge of construction materials, and can pass the course. The content of reports must show the level of understanding of the properties of each construction material, and must also satisfy precautions for taking this course.
Notice	Various construction materials will be introduced, and students must pre-study and review to make sure they organize their understanding. Students should put effort to understand how construction materials are used in a familiar environment. 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	Types of cement and methods of manufacturing	Can explain the types of cement and the methods of manufacturing
		2nd	Chemical properties of cement	Can explain the chemical properties of cement
		3rd	Exercise 2 - 1	Understand the properties of the construction materials studied in class
		4th	Role and types of aggregate	Can explain the role and types of aggregate
		5th	Nature of aggregate	Can explain the nature of aggregate
		6th	Exercise 2 - 2	Understand the properties of the construction materials studied in class
		7th	Role and types of admixtures	Can explain the role and types of admixtures
		8th	Functions of admixtures	Can explain the functions of admixtures
	4th Quarter	9th	Exercise 2 - 3 Types of concrete	Understand the properties of the construction materials studied in class Can explain the types of concrete
		10th	Degradation of hardened concrete-1	Can explain the degradation of hardened concrete
		11th	Degradation of hardened concrete-2	Can explain the degradation of hardened concrete
		12th	Exercise 2 - 4	Understand the properties of the construction materials studied in class
		13th	Types of polymer material	Can explain the types of polymer materials
		14th	Composite material made of polymers, and its application as repair and reinforcement material	Can explain the composite material made of polymers, and its application as repair and reinforcement material
		15th	Global environmental issues and construction materials	Can explain global environmental issues and construction materials
		16th	Final exam	

Evaluation Method and Weight (%)

	Exams	Exercises and Reports	Effort status for classes	Total
Subtotal	50	40	10	100
Basic Proficiency	20	10	10	40
Specialized Proficiency	30	20	0	50

Cross-Disciplinary Proficiency	0	10	0	10

Akashi College	Year	2024	Course Title	Exercises of Surveying Ⅰ

Course Information

Course Code	6230	Course Category	Specialized / Compulsory
Class Format	Practical training	Credits	Academic Credit: 2
Department	Civil Engineering	Student Grade	2nd
Term	First Semester	Classes per Week	2
Textbook and/or Teaching Materials	Handout		
Instructor	IKUTA Ami,OSHIRO Yuki,KAKUNO Yoshinori		

Course Objectives

Understand the procedures for control point survey and topographic survey, and can apply the surveying theory.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Understand the procedures for control point survey, can calculate accurately, and can apply the surveying theory.	Understand the procedures for control point survey, and can apply the surveying theory.	Do not understand the procedures for control point survey, or apply the surveying theory.
Achievement 2	Fully understand topographical surveying, and can perform survey with equipment.	Understand topographical surveying, and can perform survey with equipment.	Do not understand topographical surveying, and cannot perform survey with equipment.

Assigned Department Objectives

Teaching Method

Outline	Learn how to set out to the site, and become able to practically apply the surveying theory.
Style	Practical trainings and exercises will be conducted by several faculty members. Exercises are carried out together with the reviewing of class contents. The evaluation will be based 80% on reports, and 20% on attitude toward class activities. However, in cases where reports., etc. are inadequate, students must re-submit them, or will be given 59 points or less for their evaluation.
Notice	Commit to the basics and make accurate measurements, and improve the quality of deliverables. Be attentive to safety. 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 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	Traverse surveying (methods)	Can explain the classification by the size of an area, order, method, purpose, and law. Can explain the survey system (national control points, etc.).
		2nd	Traverse surveying (determining the location of points, placing marks)	Can explain the types, procedures, and calculation method for traverse surveying
		3rd	Traverse surveying (measuring distance and angles)	Can explain the types, procedures, and calculation method for traverse surveying
		4th	Traverse surveying (measuring distance and angles)	Can explain the types, procedures, and calculation method for traverse surveying
		5th	Traverse survey (adjustment calculation)	Can explain the types, procedures, and calculation method for traverse surveying
		6th	Topographic survey (using plane table)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.
		7th	Topographic survey (using plane table)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.
		8th	Topographic survey (using plane table)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.
	2nd Quarter	9th	Topographic survey (using plane table)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.
		10th	Topographic survey (using total station)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying. Can explain the survey system (national control points, etc.).
		11th	Topographic survey (using total station)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.
		12th	Topographic survey (using total station)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.

		13th	Topographic survey (using total station)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.
		14th	Topographic survey (using total station)	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.
		15th	Surveying exercise	Can explain the topographic surveying method. Can explain the types, procedures and methods of traverse surveying.
		16th	No final exam	

Evaluation Method and Weight (%)

	Exams	Reports	Mutual Evaluations	Attitude	Portfolio	Other	Total
Subtotal	0	80	0	20	0	0	100
Basic Proficiency	0	20	0	5	0	0	25
Specialized Proficiency	0	50	0	10	0	0	60
Cross-Disciplinary Proficiency	0	10	0	5	0	0	15

Akashi College	Year	2024	Course Title	Exercises of Surveying Ⅱ

Course Information

Course Code	6231	Course Category	Specialized / Compulsory
Class Format	Practical training	Credits	Academic Credit: 2
Department	Civil Engineering	Student Grade	2nd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials	Handout		
Instructor	IKUTA Ami,OSHIRO Yuki,NABESHIMA Yasuyuki		

Course Objectives

Learn how to set out to the site, and can practically apply the surveying theory.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Learn how to set out to the site, and can accurately calculate and practically apply the surveying theory.	Learn how to set out to the site, and can practically apply the surveying theory.	Do not learn how to set out to the site, and cannot practically apply the surveying theory.
Achievement 2	Fully understand photographic surveying, and can perform survey with equipment.	perform survey with equipment.Understand photographic surveying, and can perform survey with equipment.	Do not understand photographic surveying, and cannot perform survey with equipment.

Assigned Department Objectives

Teaching Method

Outline	Learn how to set out to the site, and become able to practically apply the surveying theory.
Style	Practical trainings and exercises will be conducted by several faculty members. Exercises are carried out together with the reviewing of class contents. The evaluation will be based 80% on reports, and 20% on attitude toward class activities. However, in cases where reports., etc. are inadequate, students must re-submit them, or will be given 59 points or less for their evaluation.
Notice	Commit to the basics and make accurate measurements, and improve the quality of deliverables. Be attentive to safety. 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 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	Route surveying (setting out of simple curve and clothoid curve)	Can explain the simple curves and relaxation curves, and describe the methods of setting out.
		2nd	Route surveying (setting out of simple curve and clothoid curve)	Can explain the simple curves and relaxation curves, and describe the methods of setting out.
		3rd	Route surveying (setting out of simple curve and clothoid curve)	Can explain the simple curves and relaxation curves, and describe the methods of setting out.
		4th	Route surveying (setting out of simple curve and clothoid curve)	Can explain the simple curves and relaxation curves, and describe the methods of setting out.
		5th	Triangulation	Can explain the procedure and calculation method for triangulation. Can explain the survey system (national control points, etc.).
		6th	Triangulation	Can explain the procedure and calculation method for triangulation. Can explain the survey system (national control points, etc.).
		7th	Triangulation	Can explain the procedure and calculation method for triangulation. Can explain the survey system (national control points, etc.).
		8th	Topographical survey (road longitudinal profile)	Can explain the road longitudinal profile.
	4th Quarter	9th	Photographic surveying	Can explain the principle and method of photographic surveying. Can explain the nature and use of contour lines.
		10th	Photographic surveying	Can explain the principle and method of photographic surveying. Can explain the nature and use of contour lines.
		11th	Photographic surveying	Can explain the principle and method of photographic surveying. Can explain the nature and use of contour lines.
		12th	topographic surveying (using LiDAR senor)	Can explain the topographic surveying using using LiDAR senor.

		13th	topographic surveying (using LiDAR senor)	Can explain the topographic surveying using using LiDAR senor.
		14th	topographic surveying (using drone)	Can explain the topographic surveying using using drone.
		15th	topographic surveying (using drone)	Can explain the topographic surveying using using drone.
		16th	No final exam	

Evaluation Method and Weight (%)

	Exams	Reports	Mutual Evaluations	Attitude	Portfolio	Other	Total
Subtotal	0	80	0	20	0	0	100
Basic Proficiency	0	20	0	5	0	0	25
Specialized Proficiency	0	50	0	10	0	0	60
Cross-Disciplinary Proficiency	0	10	0	5	0	0	15