		College		Cours	e of Ci	vil Engineering	Year	2024		
De	par	tment Goals								
Cou e Cat ory	eg	Course Title	Cours e Code	Credit Type	Credit s	Class Hours per Week 1st Year	1st 2nd	4th Year 5th Year 1st 2nd 1st 2nd 1 2 3 4 1 2 3 4 4 Q Q Q Q Q Q Q Q	Instru ctor	Divisio n in Learni ng
Sp eci ali ze d	Co m pu lso ry	Architectural Drawing	18124 01	School Credit	1				Tada Yutaka	
Sp eci ali ze d	Co m pu lso ry	Mini-Research on Civil Engineering 1	18125 01	School Credit	1				Kage masa Shuka ,Osad a Kengo	
Sp eci ali ze d	Co m pu lso ry	Surveying theory and Practice 1	1812A 02	School Credit	4				Kadon o Takum a,Osa da Kengo	
Sp eci ali ze d	Co m pu lso ry	Fundamental of Structural Mechanics	1812C 04	School Credit	1				Moriya ma Takur o	
Sp eci ali ze d	Co m pu lso ry	Architectural Planning 1	1812D 01	School Credit	2	2 2			Tada Yutaka	
Sp eci ali ze d	Co m pu lso ry	Fundamental of Civil Engineering	1812T 02	School Credit	1	2			Inoue Takafu mi	
Sp eci ali ze d	Co m pu lso ry	Basic Practice in Civil Engineering	18136 01	School Credit	2		2 2		Osada Kengo ,Kage masa Shuka	
Sp eci ali ze d	pu Iso ry	Surveying 2	1813A 01	School Credit	2		2 2		Tada Yutaka ,Inoue Takafu mi	
Sp eci ali ze d	Co m pu lso ry	Structural Mechanics	1813C 02	School Credit	2		2 2		Inoue Takafu mi	
Sp eci ali ze d	Co m pu lso ry	Soil Mechanics	1813D 01	School Credit	2		2 2		Yoshi mura Hirosh i	
Sp eci ali ze d	Co m pu lso ry	Hydraulics	1813E 01	School Credit	2		2 2		Osada Kengo	
Sp eci ali ze d	Co m pu lso ry	Surveying Practice 2	1813T 01	School Credit	3		2 4		Tada Yutaka ,Inoue Takafu mi	
Sp eci ali ze d	El ec tiv e	Architectural Desing 1	18934 02	School Credit	2		2 2		Ebisun o Akio,M oriya ma Takur o	
Sp eci ali ze d	El ec tiv e	Civil Engineering Practice 1	18936 02	School Credit	2		2 2		Yoshi mura Hirosh i,Moriy ama Takur o	

Sp eci ali ze d	Co m pu Iso ry	Probability and Statistics	1514A 01	Acade mic Credit	2	Sugino Ryuza buro
Sp eci ali ze d	Co m pu Iso ry	Engineering Mechanics	1514B 01	Acade mic Credit	2	Moriya ma Takur o
Sp eci ali ze d	Co m pu lso ry	Materials	1814B 03	Acade mic Credit	2	Kadon o Takum a
Sp eci ali ze d	Co m pu lso ry	Structural Engineering 1	1814C 02	Acade mic Credit	2	Moriya ma Takur o
Sp eci ali ze d	Co m pu iso ry	StructuralMechanics2	1814C 04	Acade mic Credit	2	Moriya ma Takur o
Sp eci ali ze d	Co m pu lso ry	StructuralMechanics3	1814C 05	Acade mic Credit	2	Inoue Takafu mi
Sp eci ali ze d	Co m pu Iso ry	Geotechnical Engineering	1814D 01	Acade mic Credit	2	Yoshi mura Hirosh i
Sp eci ali ze d	Co m pu iso ry	Hydraulic Engineering	1814E 01	Acade mic Credit	2	Osada Kengo
Sp eci ali ze d	Co m pu lso ry	Environmental Engineering	1814F 02	Acade mic Credit	2	Kage masa Shuka
Sp eci ali ze d	Co m pu iso ry	City Planning	1814G 01	Acade mic Credit	2	,Moriy ama Takur o
Sp eci ali ze d	Co m pu iso ry	Regional Planning	1814G 02	Acade mic Credit	2	Moriya ma Takur o
Sp eci ali ze d	Co m pu lso ry	ConstructionWorkCont rol	1814H 01	Acade mic Credit	2	Yoshi mura Hirosh i
Sp eci ali ze d	Co m pu Iso ry	Civil Engineering Experiment 1	1814T 04	Acade mic Credit	2	Yoshi mura Hirosh i,Inou e Takafu mi
Sp eci ali ze d	Co m pu lso ry	Civil Engineering Experiment 2	1814T 05	Acade mic Credit	2	Kadon o Takum a
Sp eci ali ze d	El ec tiv e	CivilEngineeringPractic e2	18946 01	School Credit	2	Yoshi mura Hirosh i,Moriy ama Takur o,Osa da Kengo ,Kado no Takum a,Kag emasa Shuka

			1		1	
Sp eci ali ze d	El ec tiv e	Civil Engineering Seminar	18946 02	School Credit	1	Yoshi mura Hirosh i,Moriy ama Takur o,Osa da Kengo ,Tada Yutaka ,Inoue Takafu mi,Ka dono Takum a,Kag emasa Shuka
Sp eci ali ze d	El ec tiv e	Architectural Planning 2	1894D 01	Acade mic Credit	2	Tada Yutaka
Sp eci ali ze d	El ec tiv e	Internship	1894R 11	School Credit	1	Kage masa Shuka
Sp eci ali ze d	Co m pu so ry	Research for Graduation Thesis	18150 00	School Credit	10	Yoshi mura Hirosh i,Moriy ama Takur o,Osa da Kengo ,Tada Yutaka ,Inoue Takafu mi,Ka dono Takum a,Kag emasa Shuka
Sp eci ali ze d	Co m pu lso ry	Structural Engineering 3	1815C 03	Acade mic Credit	2	Kadon o Takum a
Sp eci ali ze d	Cerus	Structural Engineering 2	1815C 04	Acade mic Credit	2	Inoue Takafu mi
Sp eci ali ze d	Co m pu so ry	Programming	1815I 01	Acade mic Credit	2	Inoue Takafu mi
Sp eci ali ze d	Co m pu lso ry	Civil Engineering Experiment 3	1815T 05	Acade mic Credit	2	Osada Kengo ,Kage masa Shuka
Sp eci ali ze d	El ec tiv e	Design and Drawing 2	18954 02	Acade mic Credit	2	Ebisun o Akio,M oriya ma Takur o
Sp eci ali ze d	El ec tiv e	Architectural Planning 3	1895D 01	Acade mic Credit	2	Tada Yutaka
Sp eci ali ze d	El ec tiv e	Low of Construction	1895H 01	Acade mic Credit	2	Tada Yutaka

A	Anan Co	llege		Year	2024			ourse Title	Architectural Drawing			
Course	Informa	tion						TILLE				
Course Co		1812401	1			Course Categor	rv	Specialize	ed / Compulsory			
Class Forr		Lecture	<u> </u>			Credits	ı y	School C	<u> </u>			
Departme		Course of	of Civil F	naineerir	na	Student Grade		2nd	caic. I			
Term		First Sen		rigiricciii	19	Classes per Week 前期:2						
Textbook Teaching		(1) Archi (X-Know	itectural (ledge),	(3) Stan	dards for Preparati	ousing (Gakugei on of Building Co	Shuppa	ansha), (2 tion Design	2) How Wooden Houses are Built on Documents (Ministry of Land, (5) Drawings for wooden houses			
Instructor	•	Tada Yut	taka									
Course	Objectiv	es										
dimension 2 Underst 3 To be al 4. To be a 5. Unders	nal drawing and the cl ble to ider able to dra	gs, etc.) naracteristic itify and ap w design d	cs of dra ply drafi rawings	ifting too ting syml (plan, el	xpress them (to be Is and be able to d pols based on the g evation, section, a xterior and interior	istinguish lines. general rules of a nd development	archited	ctural drav	nsional space by looking at two- wing. ses.			
Rubric						1						
				Level		Standard Level			Unacceptable Level			
Achievem	achievement 1			ble to ac sues rela ective, t	of the students curately represent ated to one-point wo-point model making.	At least 70% of are able to accu the issues relat perspective, tw perspective, an	urately ted to o o-point	represen ne-point t	the issues related to one-point perspective, two-point			
Achievement 2			Draw	lines of nesses (v hin) in th	three different very thick, thick, nree different	Draw lines of th thicknesses (ve and thin) in two densities.	hree dif	ferent k, thick,	Draw lines of three different thicknesses (very thick, thick, and thin) with one density.			
Achievem	ent 3		of the gene drafti	e drafting ral rules na for pl	pply at least 80% g symbols for the of architectural ans, elevations, developments.	Identify and ap of the drafting general rules of drafting for plan sections, and d	symbol f archit ns, elev	ls for the ectural vations,	Identify and apply at least 60% of the drafting symbols for the general rules of architectural drafting for plans, elevations, sections, and developments.			
Achievem	ent 4		Draw plan, deve	wooden elevation opment) acy com		Draw wooden house plans (floor plan, elevation, section, and development) with at least 70% accuracy compared to the model.			r Draw wooden house plans (floor plan, elevation, section, and			
Achievem	ent 5		issue exter	s related	t least 80% of the to materials for nterior finishes of es.	Understand at lissues related texterior and intervious	to mate terior fi	rials for	Understand at least 60% of the issues related to materials for exterior and interior finishes of wooden houses.			
Assiane	d Depar	tment Ob	piective	ctives								
	到達度目標		J									
	g Metho											
Outline	griceilo	This cou of repres This cou	senting a rse is ta	e is designed to provide students with a basic ur nting a three-dimensional space in two dimensic e is taught by faculty members who have worke experience in teaching this subject.				architectu	ral and civil engineering design.			
Style		This clas such as I Class ho	rulers, e	tc. to ea	ted in the form of ϵ ch class.	exercises. Theref	fore, ple	ease be s	ure to bring the designated items			
Notice		lan advar	ntage in	the num	her of years of wo	rk exnerience an	nd othe	r gualifica	tudents who complete it will have tions to take the examinations. oilities will be developed year by nd year to the fifth year.			
Charact	eristics o	of Class /	Divisi	on in Le	earning							
☑ Active	Learning		☑ Ai	ded by I	СТ	☐ Applicable to	o Remo	ote Class	☐ Instructor Professionally Experienced			
Course	Plan											
			Theme				Goals					
1-1		1st	Let's do	a sketch	1.		and ac the im Studer	tual work portance nts will lea y make sl	early stage of architectural design s will be compared to understand of sketches. arn how to make sketches and ketches.			
	1st Quarter	2nd	Underst	anding 3	D space with 2D d	-	dimen: Studer	sional dra nts will un ectural dra	ree-dimensional space with two- wings using BIM software. derstand the types of awings.			
		3rd	Let's dr	draw hand-drawn perspective			Drawing of the interior view of a building using one-point perspective. Textbook 4					

			ı						
		4th	Let's draw hand-c	drawn perspectiv	e	Drawing the external point perspective Textbook 4	erior of a building method.	g using the two-	
		5th	Creating 3D space	e from 2D drawir	ngs	Understand how house and be ab	to draw a plan de to copy it.	of a wooden	
		6th	Creating 3D space	e from 2D drawir	ngs	Understand how house and be ab	to draw a plan de to copy it.	of a wooden	
		7th	Creating 3D space	e from 2D drawir	ngs	This week is desi the relationship be space by creating house drawings of Textbook (5)	oetween 2D dra a a White model	from wooden	
		8th	Midterm examinat	tion					
		9th	Creating 3D space	e from 2D drawir	ngs	The student will be able to visit a wooden house for which he/she has made a white model and explain the differences between his/her model and the actual work and the reasons for the differences. Textbook (5)			
		10th	Let's draw a desig	gn drawing!		This course is de an understanding related to floor p using drafting sy Textbooks (1) ar	g of the general lans and to drav mbols, etc.	e students with rules of drafting v floor plans	
	11th		Let's draw a desig	gn drawing!		This course is designed to provide students with an understanding of the general rules of drafting related to architectral drawings and to draw floor plans using drafting symbols, etc. Textbooks (1) and (3).			
	2nd Quarter	12th	Let's draw a desig	gn drawing!		This course is de an understanding related to f archi elevation using d Textbooks (1) ar	g of the general tectral drawings Irafting symbols	rules of drafting and to draw	
		13th	Let's draw a desig	gn drawing!		This course is de an understanding related to archit intelier elevation Textbooks (1) ar	g of the general ectral drawings using drafting s	rules of drafting and to draw	
		14th	Let's draw a desig	gn drawing!		This course is designed to provide students with an understanding of the general rules of drafting related to architectral drawings and to draw intelier elevation using drafting symbols, etc. Textbooks (1) and (3).			
		15th	Let's draw a desig	ın drawing!		Understand the design intent from documents and drawing reproductions related to masterpiece houses.			
	16th		Return of final exa	aminations		Prepare exterior from wooden ho The students will them into a book Textbooks (1) ar	use drawings. bind the drawir 	spective drawings	
Evaluati	on Meth	nod and \	Weight (%)				<u> </u>		
		amination	Quiz	Portfolio	Presentation and Attitude		Other	Total	
Subtotal	30	1	10	50	10	0	0	100	
Basic Proficiency	, 30		10	20	10	0	0	70	
Specialized Proficiency	d / 0		0	30	0	0	0	30	
Cross Area Proficiency			0	0	0	0	0	0	

A	Anan Co	llege	Year	2024		Course Title	Mini-Research on Civil Engineering 1	
Course :	Informa	tion	•			•		
Course Co	ode	1812501			Course Categor	y Specia	alized / Compulsory	
Class Forr	mat	Lecture			Credits	School	ol Credit: 1	
Departme	ent	Course o	f Civil Engineeri	ing	Student Grade	2nd		
Term		First Sen	nester		Classes per We	ek 前期:2	2	
Textbook Teaching	Matérials		hers distribute o					
Instructor			sa Shuka,Osada	Kengo				
1. Able to one's own 2. Able to 3. Able to 4. Able to	n opinions plan 'an a collect an	te the latest as a report. attractive fu d organize	ture city' under	hniques in each fie given conditions. essary for planning oposing a group pl	with co-working	in a group.	organize investigation results and	
Rubric							1	
			Ideal Level		Standard Level		Minimum Level	
Course Objective 1			trends and te field of civil e taking the ini organize inve	tigate the latest echniques in each ingineering by tiative. Able to estigation results in opinions as a	Able to investig trends and tech field of civil end organize invest and one's own report.	nniques in eac gineering. Able igation results	ch e to investigate the latest trends and techniques in each field of civil engineering. Able to	
Course Objective 2			Able to plan ' functional fut given condition	an attractive and cure city' under ons.	Able to plan 'ar city' under give			
Course Objective 3			information r	n co-working in a	Able to collect a information neo planning with c group.	cessary for	Able to collect and organize information necessary for planning.	
Course Ob	ojective 4		Able to prepare presentation proposing a contract with group.	are clearly a poster for group plan and co-working in a	oster for oup plan and		Able to prepare a presentation poster for proposing a group plan and conduct a presentation.	
Assigne	d Depar	tment Ob			1		-	
				B-1 学習・教育到達				
	g Metho							
Outline	5	In the fir techniquengineer The learr one's ow about civ	es regarding ea ing, geotechnica ner investigates n opinions as a ril engineering fi	quarter of this class, the learner aims to obtain knowledge about roles and the latest trends ar regarding each field of civil engineering: structure, material, hydraulic engineering, environmed, geotechnical engineering, construction management, city and region planning, and architection revestigates civil engineering fields using the internet and organizes investigation results and organizes investigation results and organizes are port. Through these tasks, the learner can raise knowledge and understanding engineering fields. In the second quarter of this class, the learner plans 'an attractive future cith conditions and presents with co-working in a group.				
Style		Then, the opinions The seco create a learners working The teac	e learners inves as a report. nd quarter: The future city with prepare a prese together in a gr	tigate each field or teachers give the attractive and fund entation poster on to oup. te the academic ac	the internet and conditions for plactional under give the contents of th	l organize the anning 'an att en conditions l ne group plan	igineering at the beginning of class. e obtained results and one's own tractive future city'. The learners by co-working in a group. The and conduct the presentation by dispresentation ability.	
	aristics (of Class /	Division in L	earning				
☐ Active		Ji Class /	☐ Aided by		☐ Applicable t	o Remote Clas	Instructor Professionally Experienced	
			1		•		1 1	
Course	Plan							
220.00		-	Theme			Goals		
		1st	Class guidance. Explanation of s Investigation of of structure and	structure and mate the latest trends a material fields nvestigation report	and techniques	Able to invest techniques in	stigate the latest trends and n structure and material fields and estigation results as a report.	
1st Semeste r	1st Quarter	2nd	Investigation of of structure and Preparation of i	structure and mate the latest trends a I material fields nvestigation report	and techniques	techniques in	stigate the latest trends and n structure and material fields and estigation results as a report.	
		3rd	engineering fiel Investigation of in hydraulic and	nydraulic and envir ds the latest trends a d environmental en nvestigation report	and techniques gineering fields	Able to investigate the latest trends and techniques in hydraulic and environmental engineering fields and organize investigation results as a report.		

	4th	engine Investi in hydr		trends and techniq ental engineering f		techniques in	n hydraulic and env fields and organize	vironmental	
	5th	constru Investi in geot manag	ation of geotechnic uction management gation of the latest echnical engineerin ing fields ation of investigatio	n geotechnical engi management fields	neering and s and organize				
	6th	constru Investi in geot manag		t fields trends and techniq ng and construction		techniques in construction	n geotechnical engi management fields	neering and s and organize	
	7th	Investi in city				techniques ir	igate the latest trends and geotechnical engineering and nanagement fields and organize results as a report. igate the latest trends and geotechnical engineering and nanagement fields and organize results as a report. igate the latest trends and city and regional planning fields and stigation results as a report. igate the latest trends and city and regional planning fields and stigation results as a report. igate the latest trends and architecture and organize results as a report. igate the latest trends and architecture and organize results as a report. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster. I future city with attractions in a ganize proposal contents as a coster.		
	8th	Investi in city	Explanation of city and regional planning fields Investigation of the latest trends and techniques in city and regional planning fields Preparation of investigation report				n city and regional	planning fields and	
	9th	Investi in the	ation of the archite gation of the latest architecture field ation of investigatio	trends and techniq	lues	Able to investigate the latest trends and techniques of architecture and organize investigation results as a report.			
	10th	Investi in the	ation of the archite gation of the latest architecture field ation of investigatio	trends and techniq	lues	techniques o		organize	
	11th	Plannir		of a future city with attractions (a group			Able to plan a future city with attractions in a group and organize proposal contents as a presentation poster.		
2nd Quarter	12th	Plannir activity		vith attractions (a g	roup	Able to plan a future city with attractions in a group and organize proposal contents as a presentation poster. Able to plan a future city with attractions in a group and organize proposal contents as a presentation poster.			
	13th	Plannir activity		vith attractions (a g	roup				
	14th	Plannir activity		vith attractions (a g	roup		rganize proposal co		
	15th	Group attract		osal of a future city	with				
F 1 1: 11:	16th	144	(0/)						
Evaluation Met					Droz-	ntation / Att:		1	
	Midterm/f Exam	ınaı	Quiz	Portfolio	ude	entation/Attit	Other	Total	
Subtotal	0		0	80	20	· · ·	0		
Basic Proficiency	0		0	20	10		0	30	
Specialized Proficiency			0	60	10		0	70	
Cross Area Proficiency	0		0	0	0		0	0	

A	Anan Co	llege		Year	2024			ourse :	Surveying theory and Practice 1
Course :	Informa	tion							
Course Co	ode	1812A02				Course Catego			d / Compulsory
Class Forr	mat	授業・実				Credits		School Cr	edit: 4
Departme	ent			il Engineering	<u> </u>	Student Grade		2nd	
Term		Year-rou	ınd			Classes per We	eek	前期:4 後期	明:4
Textbook Teaching		Surveyin	ıg I ,	Second Edition	on(CORONA PUBL	ISHING CO., L	ΓD.), Ha	andouts	
Instructor	-	Kadono	Takuı	ma,Osada Ke	ngo				
Course	Objectiv	es							
2. Able to be able to 3. Able to tasks to a 4. Able to drawings.	understar explain the work coordings specified calculate	nd the outline basics are peratively industriant industriant in the peratively industriant and the peratively in the peratives of the perative of the peratives of the perative of the peratives	ne of nd ho n pra curacy ained	distance survive to handle rectical training. from distance	measuring instrun and be able to m	ingular surveyin nents. neasure distance traverse, and pl	ig, trave e, level, lane sur	erse surve angular, t veys, and	ne errors. ying, and plane surveying, and craverse, and plane surveying report results and prepare plan
Rubric	understar	id HOW to C	aicui	ate area ana	volume and be at	de to explain be	isic mac	icis.	
NUDITC			14	eal Level		Standard Level	<u> </u>		Minimum Level
					and and explain				
Achievem	ent 1		the ge me	e basics of su eneral, basic c	rveying in .	Able understar basics of surve basic calculatio how to handle	ying in on meth	general, ods and	Able to explain the basics of surveying in general, basic calculation methods, and how to handle errors.
Achievement 2			of an su su ba me	distance surveyingular surveying, and rveying, and isics and how	plane tabel	Able to unders of distance sur angular survey surveying, and surveying, and basics and how measuring inst	veying, ring, tra plane t explain v to han	leveling, verse abel the dle	Able to explain the overview of distance surveying, leveling, angular surveying, traverse surveying, and plane tabel surveying (basic information and how to handle measuring equipment).
Achievem	ent 3		pra an dis tra su		angular, lane tabel nments to a	Able to work copractical training distance, level, traverse, and parveying tasks level of accuracy	ng, and angula plane ta s to a sp	measure r, bel	Able to work cooperatively in practical training, and perform basic measurements in distance, leveling, angular, traverse, and plane tabel surveying setups.
Achievem	ent 4		va lev pla the	llues obtained veling, angula ane tabel sur	e and evaluate I from distance, Ir, traverse, and veying, etc., and ults and prepare	Able to calculate values obtained from distance, leveling, angular, traverse, and plane tabel surveying, and report results and prepare plan drawings.			Able to perform basic processing of values obtained from distance, leveling, angular, traverse, and plane tabel surveys, and to report results and prepare plan drawings.
Achievem	ent 5		co	Able to understand and explain Able to contents of calculation methods basic contents		Able to understand and explain basic contents of calculation methods of area and volume.		ılation	Able to explain basic contents of calculation methods of area and volume.
Assigne	d Depar	tment Ob	ject	ives					
学習・教育	到達度目標	票 B-2 学習・	教育	到達度目標 D-	1 学習・教育到達原	度目標 E-2			
Teachin	g Metho	d							
Outline		other inf course is solving s surveyin	forma s a lec skills a g. In	ation, which is cture-based c and self-learn this course, f	s used land develo course parallel to the sing abilities learing	ppment, environ the pracice, and ig knowlege, tec tho was in charc	ment colling to the second colling to the se	onservation ire knowles and calu	nces, angles, areas, volumes and in and construction work. This dge, application skills, problem- claction methods relayed to manegement at company use its
Style		【61 hou	ırs of	calss time +	61 hours of pract	ice time + final	exam]		
Notice		surveyor be subm third gra	and aitted.	assistant reg . This course n addition, st	istered surveyor. is an imprtant cou udents should alw	In case of unavurse that directlesses come to so	oidable y leads hool pre	circumsta to 'Survey epared for	aminations for registered nces, the notice of absense must ring theory and Practice 1' in the both courses (lecture and ce, weather conditions.
Charact	eristics o	of Class /	Div	ision in Lea	arning				,
□ Active	Learning			Aided by IC	Т	☐ Applicable t	o Remo	te Class	☐ Instructor Professionally Experienced
Course	Plan								
			Then	ne			Goals	- 	
1st	1ct	1st	Guida Outli error	ne of surveyir	ng, Handling of ca	lculation and	Able to understand and explain the aim and significance of this course.		
Semeste r	1st Quarter	2nd		Handling of calculation and error, Distance Surveying			Able to explain significant figures, rounding of figures, least squares method. And, able to understand and explain the outline, classificatio and instruments used in distance surveying.		

		3rd	Distance surveying	Able to measure distances using a glass fiber tape and a steel tape. And able to explain and calculate the errors that can be caused by distance surveying.				
		4th	Distance surveying	Able to understand and explain the method of distance survey using the electro-optical distance measuring instrument.				
		5th	Leveling	Able to understand and explain the outline, classification, and instruments used in leveling.				
		6th	Leveling	Able to understand and explain the calculation method of the error for leveling by elevating system.				
		7th	Leveling	Able to understand and explain the calculation method of the error for leveling by instrumental-height system.				
		8th	Midterm Exam, Leveling	Able to understand and explain the calculation method of the error for leveling by instrumental-height system.				
		9th	Return of answer, Angular surveying	Able to understand and explain the outline, category and equipment of angular surveying.				
		10th	Angular surveying	Able to understand and explain the outline, category and equipment of angular surveying.				
		11th	Angular surveying	Able to explain angular surveying methods (single, double, and directional methods) and calculate angles. And, able to perform installing total stations and mesureing distance and angle using the total station.				
	2nd Quarter	12th	Angular surveying	Able to explain angular surveying methods (single, double, and directional methods) and calculate angles. And, able to mesure angles by double method using the total station.				
		13th	Angular surveying	Able to explain directional method and calculate angles. And, able to mesure angles by double method using the total station.				
		14th	Angular surveying	Able to explain directional method and calculate angles. And, able to mesure angles by double method using the total station.				
		15th	Traverse surveying	Able to explain directional method and calculate angles. And, able to mesure angles by double method using the total station.				
		16th	Final exam, Return of answer					
		1st	Traverse surveying	Able to understand and explain the outline, classification, and instruments used in traverse surveying. And able to perform traverse surveying using a total station.				
		2nd	Traverse surveying	Able to understand and calculate azimuth, directional angle, and bearing. And able to perform traverse surveying using a total station.				
		3rd	Traverse surveying	Able to understand and calculate the closed traverse. And able to perform traverse surveying using a total station.				
	3rd Quarter	4th	Traverse surveying	Able to understand and calculate the closed traverse. And able to perform traverse surveying using a total station.				
		5th	Traverse surveying	Able to understand and calculate the fixed traverse. And able to perform traverse surveying using a total station.				
		6th	Traverse surveying	Able to understand and calculate the error of closure and its ratio.				
2nd Semeste r		7th	Traverse surveying	Able to understand and calculate the total latitude and departure, and the calculation method of area.				
		8th	Midterm Exam, Traverse surveying	Able to drow the traverse from the results obtained.				
		9th	Return of answer, Plane table surveying	Able to understand and explain the outline, category and equipment of plane table surveying. And able to install and operate the plane table surveying euipments.				
	4th	10th	Plane table surveying	Able to understand and explain the method of plane table surveying. And able to draw geographic features on a drawing by using plane table surveying.				
	Quarter	11th	Plane table surveying	Able to understand and explain methods of plane table surveying(graphical traversing method, radiation method, intersection method).				
		12th	Plane table surveying	Able to understand the calculation methods of the accuracy and error of plane table surveying and calculate them. And able to draw geographic features on a drawing by using plane table surveying.				

		13th	Plane table surve	ying		accuracy and er calculate them.	Able to understand the calculation methods of the accuracy and error of plane table surveying and calculate them. And able to draw geographic features on a drawing by using plane table surveying.				
		14th	Methods of area a	1ethods of area and volume			and the calculatione, and calculate t	n methods of the hem.			
		15th	Methods of area a	and volume			and the calculatione, and calculate t	n methods of the hem.			
		16th	Final exam, Retur	n of answer							
Evaluati	on Me	ethod and '	Weight (%)								
		Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total			
Subtotal		50	0	40	10	0	0	100			
Basic Proficience	у	20	0	30	5	0	0	55			
Specialize Proficience	pecialized officiency 30 0 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		10	5	0	0	45				
Cross Are Proficience			0	0	0	0	0	0			

	Anan Co	llege	Year	2024				Fundamental of Structural Mechanics	
Course	Informa	tion							
Course Co	ode	1812C04	1		Course Category	/ Si	pecialize	d / Compulsory	
Class For	mat	Lecture			Credits	Sc	chool Cr	edit: 1	
Departme	ent	Course c	of Civil Engineerin	ng	Student Grade		nd		
Term		Second 9	Semester		Classes per Wee	k 後	期:2		
	Matérials			ourikigaku Dai 2 ha	an • Shinnsoubanr	n Jou Se	iteibann	(Morikita Shuppann)	
Instructo			ia Takuro						
1. Able to 2. Able to	calculate	calculations reaction for	rce of static bean	nce formulas and rns. section force diag			ò.		
Rubric									
			Ideal Level		Standard Level			Minimum Level	
Achievem	nent 1			nly perform sing force balance moment balance	Able to almost p calculations usin formulas and mo formulas.	g force		Able to understand calculation methods using force balance formulas and moment balance formulas.	
Achievem	nent 2		Able to confirr reaction force	mly to calculate of static beams.	Able to almost or reaction force of			Able to understand how to calculate reaction force of static beams.	
Achievem	nent 3			ate section force ectiononal force ratic beams	Able to calculate force and to dra diagram on stat	w sectio	n force	Able to understand how to calculate sectiononal force and to draw section force diagrams on static beams.	
		tment Ob 票 B-2 学習・		3-3 学習・教育到達原	 度目標 D-1				
	g Metho								
Outline		and is or develop understa	ne of the most im the dynamics lea and the concepts	nportant subjects i arned in physics an	n the constructior d to understand t ethods that will be	n field. T the conte the ba	he purp ent of st sis for a	for designing structures safely, ose of this lecture is not only to ructural mechanics, but also to eneral mechanics-related ure. I'm doing it.	
Style		Classes a	are basically don	e on the blackboar	d. You may need	to expla	in thina	s that are not written in the ebook. [Class time 30 hours]	
Notice		lneeded.	For examples an	as many example p nd homework, plea nead. If you don't i	se use paper and	a pencil	and try	actice problems as homework as to understand the contents while tate to ask.	
Charact	eristics	of Class /	Division in Le	earning					
□ Active	Learning		☐ Aided by I	СТ	☐ Applicable to	Remote	e Class	☐ Instructor Professionally Experienced	
Course	Plan								
			Theme			Goals			
		1st	Force and mome	ent	f	Able to user to concept the co	ance for	nd calculation methods using mulas and moment balance	
		2nd	Force and mome	ent	, f	Able to u	ble to understand calculation methods usi		
	3rd Quarter	3rd	Force and mome	ent	f	Able to uorce bal	ance for	nd calculation methods using rmulas and moment balance	
ı	Quarter	4th	Reaction force of	f static beam	<u> </u>	Able to us	ındersta d beams	nd the types of support points,	
		5th	Reaction force of	f static beam				reaction forces of simple beams.	
								reaction forces of cantilever	
2nd			Reaction force of		t	peams.			
Semeste r			Reaction force of		/	Able to c	alculate	reaction forces of Gerber beams.	
		8th	(Midterm exam	ination]		A.I.I. :			
				liagram of static be	earn	of simple	beam.	reaction force and sectional force reaction force and sectional force	
				liagram of static be	iaiii (of cantile	ener bea	reaction force and sectional force reaction force and sectional force	
	4th	11th	Sectional force d	liagram of static be	earri	of Gerbe	r beam.		
	Quarter	12th	Sectional force d	liagram of static be	taiii l	oeam.		tional force diagram of simple	
		13th	Sectional force d	liagram of static be	taiii l	oeam.		tional force diagram of simple	
		14th	Sectional force d	liagram of static be		Able to do	ıraw sec	tional force diagram of cantilever	

	15th	Section	nal force diagram o	f static beam		Able to draw sectional force diagram of Gerber beam.			
	16th	【Final	examination]						
Evaluation Met	hod and \	Weigh	t (%)						
	midterm/fi exam	nal	quiz	portfolio	prese ude	entation/attit	other	Total	
Subtotal	70		0	30	0		30	130	
Basic Proficiency	35		0	15	0		15	65	
Specialized 35 Proficiency			0	15	0		15	65	
Cross Area Proficiency	Cross Area			0	0		0	0	

	Anan Col	lleae	Year	2024			ourse	Architectural Planning 1		
	Informat		1				Title			
Course Co		1812D01			Course Categor	n/	Specializa	ed / Compulsory		
Class For		Lecture			Credits	ı y	School C	<u> </u>		
Departme			of Civil Engineering Student Grade 2nd				Cuit. Z			
Term		Year-roun		5	Classes per We	eek	前期:2 後] :2		
Textbook Teaching		(1) Archite	ectural Planning	for Housing (Gakı oden Houses are N 5) Compact Editior (Recruit Publicatio	ugei Shuppansha Nade (X-Knowled	a), (2) :	Satoshi Ir 4) Illustra	ei's Housing Design (X- tion Easy Architectural Planning and the West (Shokoku-sha), (6)		
Instructor	r	Tada Yuta								
Course	Objectiv	es								
2 To unde 3. To und 4 Underst	erstand the lerstand th tanding of	e architectura e architectur architectural	al plans for inde ral planning for l history of Japai	and architectural pendent dwellings housing complexes n and the West rent types of build	5.					
Rubric										
			Ideal Level		Standard Level			Unacceptable Level		
Achievem	ent 1		80% or more a understanding to basic dimen and architectu involved in arc planning.	of issues related sional systems ral predicates	70% or more a understanding to basic dimens and architectur involved in archiplanning.	of issue sional s ral pred	es related systems licates	60% or more accurate understanding of issues related to basic dimensional systems and architectural predicates involved in architectural planning.		
Achievem	ient 2		80% or more a understanding involved in the planning of an dwelling.	of the issues architectural	70% or more a understanding involved in the planning of an dwelling.	of the i	ssues ectural	60% or more accurate understanding of the issues involved in the architectural planning of an independent dwelling.		
Achievem	ent 3		80% or more a understanding to architectura multi-family ho	of issues related Il planning for	70% or more a understanding to architectural multi-family ho	of issues related planning for busing.		60% or more accurate understanding of issues related to architectural planning for multi-family housing.		
Achievem	ent 4		understanding	80% or more accurate understanding of Japanese and Western architectural history.		accurate of Japa ectural	e inese and history.	60% or more accurate understanding of Japanese and Western architectural history.		
Achievem	ent 5		80% or more a understanding involved in bui building type (social, medical facilities).	of the issues Iding planning by educational,	70% or more a understanding involved in buil building type (e social, medical, facilities).	of the i	issues anning by	60% or more accurate understanding of the issues involved in building planning by building type (educational, social, medical, commercial facilities).		
Assiane	d Depart	tment Obj	ectives		,					
				2 学習・教育到達原						
	g Metho			- 3 - 3/13-3/23						
Outline	9	Students social, me Students social, me Students This cours	will learn about edical, and comn will learn about se is taught by f	independent resid- nercial). the history of arch aculty members w	ences, apartmer iitecture in Japai ho have experie	nt buildi n and tl ence in a	ings, and he West. architectu	es involved in building planning. other building types (educational, ral design in the corporate world.		
Style		This class	will be conducters: 60 hours	ed in a lecture forr	nat. Group stud	y may l	be conduc	ted during the course of the class.		
Notice		This cours will have a examinati	se is a designate an advantage in ons.	the number of ye	ars of work expe	erience	and other	tudents who complete this course r qualifications to take the year to the fifth year, students fter year.		
Charact	eristics o	of Class / I	<u>Division in Le</u>	arning						
☑ Active	Learning		☑ Aided by IC	T	☐ Applicable t	o Remo	ote Class	☐ Instructor Professionally Experienced		
Course	Plan				,	Г				
1st Semeste	1st Quarter		heme Dimension syster	m used in construc	ition	module Unders body a To und body a	es. stand the and the did derstand t and its mo	measurement system and basic dimensions of the human mensions of movement. he basic dimensions of the human vements.		
r	Quarter	2nd M	lemorize archite	ectural predicates		buildin floors,	g predica ceilings, i	emorize the names of basic tes such as roof shape, openings, nsulation, etc., by looking at d actual objects. 1), (3), and (4).		

				Students will learn basic building prodicator
		3rd	Memorize architectural predicates	Students will learn basic building predicates related to window lighting, ventilation, and privacy, and will be able to perform calculations related to lighting and ventilation. The textbook (3) and (4)
		4th	Memorize architectural predicates	Students will learn the names of basic construction predicates related to structural materials by looking at photographs and actual materials. The textbook (3) and (4)
		5th	Study the unit space of an independent house	To understand the basic layout of a modern dwelling. Understanding of the basic layout of a modern house. The textbook (4) and (5)
		6th	Study the unit space of an independent house	To understand the architectural planning of living room, kitchen and dining room. Textbooks (2) and (4)
		7th	Study the unit space of an independent house	This course is designed to provide students with an understanding of the living room in independent dwellings, an important aspect of modern architectural history, from an architectural planning perspective. Textbooks (5) and (6)
		8th	midterm examination	
		9th	Study the unit space of an independent house	To understand the architectural plans for bedrooms, children's rooms, sanitary rooms, and storage areas. Textbooks (2) and (4).
		10th	Study the unit space of an independent house	This course is designed to provide students with an understanding of the architectural planning aspects of private rooms in independent dwellings, an important element in the history of modern architecture. Textbooks (5) and (6)
	2nd	11th	Architectural plans for independent housing	To understand how to organize the given conditions (requirements, site, laws, etc.). Use textbooks (1) and (2).
	Quarter	12th	Architectural plans for independent housing	To understand room zoning and scale planning. Use textbooks (1) and (2).
	, F	13th	Architectural plans for independent housing	To understand the design planning of the exterior of the building. Textbooks (1) and (2)
		14th	Architectural plans for housing complexes	The students will understand room zoning and scale planning. Textbook (4)
		15th	Architectural plans for housing complexes	To understand how to express a plan plan into an elevation plan. Textbook (4)
		16th	Return of final examinations at the end of the first semester	
		1st	Understanding architectural works through architectural history	Students will learn about prehistoric life and architecture in Japan and the West. Textbook (5)
		2nd	Understanding architectural works through architectural history	Students will understand ancient life and architecture in Japan and the West. Students will understand ancient life and buildings in Japan and the West. Textbook (5)
		3rd	Understanding architectural works through architectural history	Students will understand medieval life and architecture in Japan and the West. Students will understand the history of Japanese architecture in terms of temple architecture, and the history of Western architecture in terms of Romanesque and Gothic architecture. Textbook (5)
2nd Semeste r	3rd Quarter	4th	Understanding architectural works through architectural history	Students will learn about life and architecture in Japan in the early modern period. In the history of Japanese architecture, students will understand Shoin-zukuri, Sukiya-zukuri, Machiya, Farmhouse, and Castle architecture. Textbook (5)
		5th	Understanding architectural works through architectural history	Students will understand life and architecture in the early modern period in the West. In the history of Western architecture, students will understand Renaissance, Baroque, and Neoclassicism. Textbook (5)
		6th	Understanding architectural works through architectural history	Understanding of modern life and architecture in Japan and the West (up to the prewar period). Students will understand urban problems, Art Nouveau, the modern architecture movement (modernism), hired foreigners, and the birth of Japanese architects. Textbook (5)

		7th	Understanding are architectural history	chitectural works ory	through	To understand m Japan and the W Understanding of postmodernism. Textbook (5)	est (postwar).	
		8th	midterm examina	tion		r excession (s)		
		9th	Learn about build		ling type	governing the es	tablishment of oose of facilities es, zoning, arc	, the basic hitectural plans for
		10th	Learn about build	ing plans by build	ling type	Students will und planning of kinde including the law establishment of basic number of planning of unit stretchook (4)	ergartens and n is and regulatio facilities and the facilities, zoning	ursery schools, ns governing the neir purposes, the g, architectural
		11th	Learn about build	ing plans by build	ling type	Students will und planning of librar regulations gove facilities and their facilities, zoning, spaces, and acturextbook (4)	ies, including the estable roup the purposes, the architectural parchitectural pa	he laws and lishment of basic number of
	4th 12th Quarter		Learn about build	ing plans by build	ling type	Students will und governing the es purpose, the bas architectural plar works of art. Textbook (4)	tablishment of ic number of fa	cilities, zoning,
		13th	Learn about build	ing plans by build	ling type	Students will und governing the es purposes, the ba architectural plar works of art. Textbook (4)	tablishment of sic number of f	acilities, zoning,
		14th	Learn about build	ing plans by build	ling type	Students will understand the laws and regulations governing the establishment of commercial facilities and their purposes, the basic number of facilities, zoning, architectural planning of unit spaces, and actual works. Textbook (4)		
	15th 16th ion Method and		Learn about build	ing plans by build	5 /.	Students will lear planning of office regulations gove	e buildings, incli rning the estab r purposes, the architectural n	uding the laws and lishment of basic number of
			Return of final exa semester	aminations at the				
Evaluati			Weight (%)				T	
	Ex	amination	Quiz	Portfolio	Presentation and Attitude		Other	Total
Subtotal	ıbtotal 50		25	25	0	0	0	100
Basic Proficiency	, 20)	0	0	0	0	0	20
Specialized	d 30)	25	25	0	0	0	80
Cross Area	roficiency		0	0	0	0	0	0

,	Anan Co	llege	Year	2024		Course Title	Fundamental of Civil Engineering	
Course	Informa	tion						
Course Co	ode	1812T02	!		Course Category	Speciali	zed / Compulsory	
Class For	mat	Lecture			Credits	School (Credit: 1	
Departme	ent	Course o	f Civil Engineerir	ng	Student Grade	2nd		
Term		First Sen	nester		Classes per Week	前期:2		
Textbook Teaching				shinsouban jyou s	eiteihen (Morikita	Publishing Co	o., Ltd.)	
Instructo		Inoue Ta	ıkafumi					
1. Able to 2. Able to 3. Able to	perform (units correc	required in the f	field of construction position and decom	engineering.			
Rubric					T			
			Ideal Level		Standard Level		Minimum Level	
Achievem	ent 1		unit.	ely ask for the	Able to almost fir		Able to understand how to find the units.	
Achievem	ent 2		Able to reliabl calculations re of constructio	y perform equired in the field n engineering.	Able to do most of construction en	ired in the fie	Able to understand calculations required in the field of construction engineering.	
Achievem	ent 3		Able to reliable calculations used composition a	y perform sing force and decomposition.	Able to almost do using force comp decomposition.		Able to understand calculation methods using force composition and decomposition.	
Assigne	d Depar	tment Ob	jectives					
				3-3 学習・教育到達原	度目標 D-1			
Teachin	g Metho	od						
Outline		construct these wil From we specialize	From weeks 1 to 10, you will learn the basic things you will need to study specialized subjects in the foundation engineering. In the future, you will be studying various subjects in the construction field, these will be common items regardless of the subject. From weeks 11 to 15, students will learn the basics of structural mechanics, which is the basis for all specialized mechanics subjects in the construction field. The goal is to develop the mechanics learned physics and to understand the basic concepts and calculation methods of structural mechanics.					
Style		Classes a	are basically writ		ard. We may expla	ain content th	at is not written in the textbook, so	
Notice		las home	work. Please use	e paper and pencil t	o answer example	e questions ar	re will give you practice problems nd homework while thinking erstand something, please feel free	
Charact	eristics	of Class /	Division in Le	earning				
□ Active	Learning		☐ Aided by I	☐ Aided by ICT ☐ Applicable to			☐ Instructor Professionally Experienced	
	DI.							
Course	Plan	<u> </u>	T I			1		
			Theme			oals		
		1st	unit system		co	onvert units.	tand the unit system and to	
		2nd	unit system			ble to unders onvert units.	tand the unit system and to	
		3rd	unit system			ble to unders onvert units.	tand the unit system and to	
	1st Quarter	4th	unit system			ble to unders onvert units.	tand the unit system and to	
	Quarter	5th	calculation pract	ice	A fie	cquire the coreld of constru	nputational skills required in the ction engineering.	
		6th	calculation pract	ice	A fie	cquire the corell of constru	nputational skills required in the ction engineering.	
1st		7th	calculation pract	ice	A fie	cquire the coreld of constru	nputational skills required in the ction engineering.	
Semeste		8th	midterm exam					
r		9th	calculation pract	ice	A	cquire the coreld of constru	nputational skills required in the ction engineering.	
	2nd Quarter	10th	calculation pract	ice	A	cquire the coreld of constru	nputational skills required in the ction engineering.	
			What is structura force and mome		m A b	nechanics. ble to unders asic principles	tand an overview of structural tand the three elements of force, and the concept of moment.	
		12th	force and mome	nt	A	ble to unders asic principles	tand the three elements of force, s, and the concept of moment.	
						ble to perform calculations using force omposition and decomposition.		
		13th	force and mome	nt	A	ble to perforn omposition ar	n calculations using force and decomposition. In calculations using force	

	15th	force and momer	nt		Able to perform calculations using force composition and decomposition.			
	16th	Answer return						
Evaluation I	Method and \	Weight (%)						
	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total	
Subtotal	70	0	0	0	30	0	100	
Basic Proficiency	35	0	0	0	15	0	50	
Specialized Proficiency	35	0	0	0	15	0	50	
Cross Area Proficiency	0	0	0	0	0	0	0	

	Anan Co	 llege	Year	2024		Cou	_	Basic Practice in Civil
	Informa					Tit	ie li	Engineering
Course Co		1813601			Course Categor	v Sr	ecialize	d / Compulsory
Class Form		Seminar			Credits		chool Cre	•
Departme	ent	Course of C	ivil Engineering	9	Student Grade	3r	ď	
Term		Year-round			Classes per Wee	ek 前	期:2 後其	月:2
Textbook Teaching	Matérials			cuments and data	a			
Instructor			jo,Kagemasa S	ihuka				
1. Able to	explain th	ssential function	rithms for a hel	xcel, and PowerPo lpful solution exist that fits a given	t to one problem.	obtain si	imulatio	n results.
Rubric								
]	Ideal Level		Standard Level			Minimum Level
Course Ol	ojective 1	f	Able to use the functions of Wo	e various ord, Excel, and	Able to use the functions of Wo PowerPoint.			Able to use a little function of Word, Excel, and PowerPoint.
Course Ol	bjective 2	,	Able to explain many algorithn	enough that ns for a helpful o one problem.	Able to explain algorithms for a exist to one pro	a helpful s	y solution	Able to slightly explain that many algorithms for a helpful solution exist to one problem.
Course Ol	Able to run a significant fits a contract of the second se			properly and n program that blem and can on results.	Able to develop simulation prog given problem a simulation resul	ram that and can o	fits a	For a learner, it is challenging to develop and run a simulation program that fits a given problem.
Assigne	d Depar		obtain simulation results. simulation results. simulation results.					
学習・教育	到達度目標	票 B-4 学習・教 [*]	育到達度目標 D	-1				
Teachin	g Metho	od						
Outline		Ithe future t	hrough some r	tal functions of W problems: data pr elop and run calc	ocessina, makina	ı fiaures,	and ma	re crucial for jobs and research in king documents. Moreover, roblems.
Style		The teacher		cuments and data				tes academic results based on
Notice		(The learning	ig time: oo no	uis)				
	eristics o	of Class / Di	ivision in Le	arning				
□ Active		•	☐ Aided by ICT ☐ Applicable to			Remote	Class	☐ Instructor Professionally Experienced
Course	Plan	<u> </u>			1			
			eme			Goals		
			entation cument making	g using Word	,	Able to d	raw up t	the document
		2nd Do	cument making	g using Word	,	Able to d	the document	
			cument making	g using Word			the document	
			king PDF file ` cument making king PDF file	g using Word				ne Word file to a PDF file the document ne Word file to a PDF file
	1st Quarter	5th Do	cument making king PDF file			Able to d	raw up t	the document ne Word file to a PDF file
		6th The	e calculation, dures using Exce	lata processing, a el	nd making of	Able to causing Exc	alculate, cel	process data, and make figures
1st		7th The	e calculation, dures using Exce	ata processing, a el	nd making of	Able to cousing Exc	alculate, cel	process data, and make figures
Semeste			e calculation, d ures using Exce	ata processing, a el		Able to ca using Exc		process data, and make figures
		9th The	e calculation, d ures using Exce	ata processing, a el		using Exc	cel	e, process data, and make figures
		10th figi	ures using Exce	ata processing, a el s using PowerPoi	nt making of	using Exc	cel nderstar	process data, and make figures nd the handling methods of
	2nd Quarter	11th figi	ures using Exce	lata processing, a el s using PowerPoi	nt making of	using Exc	cel understa	process data, and make figures and the handling methods of
		12th figu	ures using Exce	lata processing, a el s using PowerPoi	nt making of	using Exc	cel understa	process data, and make figures and the handling methods of

			1						
		13th	figures	lculation, data proc using Excel documents using I	5.	of	using Excel	llate, process daterstand the handl	a, and make figures ing methods of
		14th	figures	lculation, data proc using Excel documents using I	J. J	g of	using Excel	llate, process daterstand the handl	a, and make figures ing methods of
		15th	figures	lculation, data proc using Excel documents using I	J. J	g of	using Excel	llate, process daterstand the handl	a, and make figures ing methods of
		16th							
		1st	Founda The pr	e of programming la ation of a simulation actice of developing tion program	n program		programmin Able to unde program Able to unde	erstand the found	ation of a simulation
		2nd		actice of developing tion program	g and running a		Able to unde	erstand the found a simulation pro	ation of developing gram
		3rd	The pr simula	actice of developing tion program	g and running a			erstand the found a simulation pro	ation of developing gram
	Ond	4th		actice of developing tion program	g and running a			lop and run a sin in simulation resi	nulation program ults for given
	3rd Quarter	5th	simula	actice of developing tion program m 1 of developing a m	,	ation	Able to deve Able to obtain problem	lop and run a sin in simulation resi	nulation program ults for given
		6th	Proble: progra	m 1 of developing a m	Able to deve Able to obtain problem				
		7th	Proble: progra	m 1 of developing a m	and running a simul	ation	Able to deve Able to obtain problem	lop and run a sin in simulation resi	nulation program ults for given
2nd Semeste r		8th	progra	m 2 of developing a		Able to deve Able to obtain problem	lop and run a sin in simulation resi	nulation program ults for given	
		9th	Proble: progra	m 2 of developing a m	and running a simul	ation	Able to deve Able to obtain problem	lop and run a sin in simulation resi	nulation program ults for given
		10th	Proble: progra	m 2 of developing a m	and running a simul	ation	Able to deve Able to obtain problem	lop and run a sin in simulation resi	nulation program ults for given
		11th	Proble: progra	m 2 of developing a m	and running a simul	ation	Able to deve Able to obtain problem	lop and run a sin in simulation resi	nulation program ults for given
	4th Quarter	12th	Proble: progra	m 3 of developing a m	and running a simul	ation	Able to deve Able to obtain problem	lop and run a sin in simulation resi	nulation program ults for given
	•	13th	Proble: progra	m 3 of developing a m	and running a simul	ation	Able to develop and run a simulation program Able to obtain simulation results for given problem		
			Proble: progra	m 3 of developing a m	and running a simul	ation	Able to develop and run a simulation program Able to obtain simulation results for given problem		
		15th	Proble: progra	m 3 of developing a m	and running a simul	ation	Able to deve Able to obtain problem	lop and run a sin in simulation resi	nulation program ults for given
		16th							
Evaluati		nod and		t (%)	Γ			ı	
		Midterm/F Exam	inal	Quiz	Portfolio	Prese ude	entation/Attit	Other	Total
Subtotal					0	100			
Basic Prof				0	20				
Specialized Proficiency 0 0 80 0 0				80					
Cross Area Proficiency 0 0 0 0 0					lo				

,	Anan Co	llege	Year	2024		Course Title	Surveying 2	
Course	Informa	tion				Title		
Course Co		1813A01			Course Categor	y Specializ	ed / Compulsory	
Class For	mat	Lecture			Credits	School C	Credit: 2	
Departme	ent	Course of	Civil Engineering	g	Student Grade	3rd		
Term		Year-rour	nd		Classes per Wee	ek 前期:2 後	始:2	
Textbook Teaching	and/or Materials	Revised S	Surveying I (Corc	ona Publishing Co.,	, Ltd.), Revised S	Surveying II (Co	orona Publishing Co., Ltd.)	
Instructo	r	Tada Yuta	aka,Inoue Takafı	umi				
Course	Objectiv	es						
2. To be a 3 Explain 4 Explain	able to exp the princip the princi	plain monoce ples and met ples of GNSS	entric curves, eas thods of photogr wave length gu	phic surveying. Ex sing curves, and lo ammetric surveyir antification. t square method a	ongitudinal curves ng.	s related to line	contour lines. e surveying. ations considering the principle.	
Rubric								
			Ideal Level		Standard Level		Unacceptable Level	
Achievem	nent 1		Understand top surveying and it to various pr	be able to adapt	Understand and topographical su		Understand the fundamentals of topographic surveying.	
Achievem	nent 2		Understand the to curve and be various problem	adapt it to	Understand sing and klothoiden of perform the calc necessary for cu	curve, and culations	Understand curve and and klothoiden curve, and various calculation methods.	
Achievem	Unde			otogrammetry adapt it to ms.	Understand pho and be able to p calculations.	otogrammetry perform basic	Understand photogrammetry.	
Achievem	nent 4		Understand GN and GIS and bo various problem	e able to adapt to	Understand and principles of GN	explain the SS and GIS.	Understand the fundamentals of GNSS and GIS.	
Achievem	nent 5		Understand the least-squares r it to various pr	e principle of the method and apply oblems.	Understand and principle of the method.			
	ed Depar	tment Ob	jectives					
Teachir	ng Metho	 od						
	<u> </u>	Maps obt	ained from surve	eying serve as the	basic data for pla	anning and exe	cution of many construction	
Outline		Surveying	g 1 and Sürveyin	g Practice 1 acqui	red in the second	l year of the co		
Style		training v	vill include many	hands-on exercise	es to increase un	derstanding of	calculation methods. Practical the surveying content.	
Notice		should th	oroughly review	and Surveying Pr and understand th Surveyor certifica	ne subject. Note i	e second year is that mastery o	s required. Therefore, students f this subject is a prerequisite for	
Charact	teristics (of Class /	Division in Le	arning				
☑ Active	Learning		☑ Aided by IC	T.	☐ Applicable to	Remote Class	☐ Instructor Professionally Experienced	
<u></u>	DI-							
Course	Plan	T						
			heme			Goals		
		1st	Surveying Classifi Triangulation	ication, Laws and	Regulations	Explain surveyi Understand tria	ng systems (e.g., Control point) angulation	
		2nd 7	triangulation			Understand tria Understand and	angulation gular eccentricity correction	
		3rd 7	triangulation			Understand tria Understand ang	angulation gular eccentricity correction	
		4th 1	opographical su	rvey		topographical s	· •	
1st	1 1		opographical su	rvey		Understand top Explain the nat use them	ographic surveying methods ure of contour lines and how to	
Semeste r	Semeste		opographical survey			Understand top Explain the nat use them	ographic surveying methods ure of contour lines and how to	
	7th Topographical survey		m (0) (Understand topographic surveying methods Explain the nature of contour lines and how to use them			
		/tn	—————	rvey	i	use tiletti		
			1idterm examina			use them		
		8th N				use them Explain curves		
	2nd	8th N	1idterm examina		1			
	2nd Quarter	8th N 9th F 10th F	Midterm examina Route survey			Explain curves		

		13th	Route survey			E	xplain klothoid	curves		
		14th	Route survey			E	xplain longitudi	nal curves		
		15th	Route survey			E	xplain longitudi	nal curves		
		16th	Exam Return							
		1st	Photographic su	urveying		E p	xplain the princ hotogrammetry	iples and meth	nods of	
		2nd	Photographic s	urveying			Explain the principles and methods of photogrammetry			
		3rd	Photographic s	Photographic surveying			xplain the prince bhotogrammetry	iples and meth	nods of	
	3rd	4th	Photographic s	Photographic surveying			xplain the princ hotogrammetry	iples and meth	nods of	
	Quarter	5th	Photographic su	urveying		E	Explain the prince bhotogrammetry	iples and meth	nods of	
		6th	Photographic surveying				xplain the princ hotogrammetry		nods of	
2nd		7th	Photographic surveying			E p	Explain the principles and methods of photogrammetry			
Semeste r		8th Midterm examination 9th GNSS surveying				,				
		9th	th GNSS surveying			Explain the principles of GNSS surveying			surveying	
		10th	GNSS surveying				xplain the princ	iples of GNSS	surveying	
		11th	GNSS surveying			E	xplain the princ	iples of GNSS	surveying	
		12th	GNSS surveying				xplain the princ			
	4th Quarter	13th	River surveying	River surveying			Understand the surveying of river topography Understand flow observation and flow calculation methods			
		14th	Random numbe	er theory		E a	Explain the principle of the least-squares method and perform calculations taking it into account			
		15th	Random numbe	er theory		E a	Explain the principle of the least-squares method and perform calculations taking it into account			
		16th	Exam Return							
Evaluat	ion Met	nod and	Weight (%)							
	Ex	amination	Quiz	Portfolio					Total	
Subtotal	60)	20	20	0		0	0	100	
Basic Proficienc	_{.y} 20	20 10		10	0		0	0	40	
Specialize Proficienc			0		0	0	60			
Cross Are Proficienc			0	0	0		0	0	0	

	Anan Co	llege	Year	2024		Course Title	Structural Mechanics 1					
Course	Informa	tion		-								
Course Co		1813C02	2		Course Catego	ry Specia	lized / Compulsory					
Class Forr	nat	Lecture			Credits		School Credit: 2					
Departme	ent	Course o	of Civil Engineerin	q	Student Grade	3rd						
Term		Year-rou		<u> </u>	Classes per We	eek 前期:2	後期:2					
Textbook Teaching		Kouzour	ikigakudai2han •	kigakudai2han • shinnsoubann jyou seiteibann (Morikita syuppann)								
Instructor	-	Inoue Ta	akafumi									
1 It is po force diag 2 Be abl 3 In a st 4 Able t	ram. e to draw atic truss, o perform	obtain the f a line of inf the fulcrur calculation	luence that is standard luence that is standard luence that is reaction force a luence that is standard is luence that is standard is stan	tically determined	can be obtained strain.	, and the line	, and to be able to draw a sectional of influence can be drawn.					
Rubric												
			Ideal Level		Standard Level		Minimum Level					
Achievem	ent 1		frame can be	and cross- of a static rigid obtained, and the I force diagram	At a level wher reaction force a force of a static be almost obta cross-section for be drawn.	and cross-sect rigid frame of ined, and a	force and section force of a static rigid frame and					
Achievem	ent 2		Level at which influence of st determined be accurately dra	atically eams can be	The level at whethe line of influbeams can be	ence of static	of A level at which you can understand how to draw the influence line of a static fixed beam.					
Achievem	A level at which the fulcrum reaction force and member force can be obtained for a static truss, and the line of influence can be drawn accurately. At a statically determined truss the fulcrum reaction force and member force can be almost obtained, and the shape of the line of influence can be drawn.				reaction force and member force in a static truss, and to understand how to draw							
Achievem	ent 4		and axial force	ich the elongation ce of a member can determined using and stress and strain. A level at which and axial force be approximate using Hooke's land strain.		of a member ely determined	can determine the elongation and axial force of members using					
Achievem	ent 5		calculate cross quantities suc	calculate cross-sectional the cross-s		n almost calcu onal quantity oment of inerti ction.	calculate cross-sectional					
Assigne	d Depar	tment Ob	iectives									
	到達度目標		.									
Teachin	g Metho	d										
Outline Style		This lect such as addition, actual st conduct Classes	stress and strain students will lea ructures such as exercises during are basically writi	and how to calcularn how to think abbeams, trusses, arclass.	ate cross-section out and calculated and rigid frames. ard. You may no	nal properties s te cross-sectio In order to de eed to explain	First, we will learn about concepts such as moment of inertia. In nal forces for structures that model eepen understanding, we plan to					
Notice		In class, necessar while thi	we explain as m y. For examples nking enough in	any example probl and homework, pl	ems as possible ease use paper he amount of ca	ten on the board in your notebook. possible, and practice problems are given as home e paper and a pencil and try to understand the cor unt of calculation will increase, please carefully tra						
Charact	eristics	of Class /	Division in Le	earning								
☐ Active		/	☐ Aided by I		☐ Applicable t	o Remote Cla	☐ Instructor Professionally Experienced					
Course Plan												
course	riali		Thoma			Goals						
		1st	Theme Sectional force d	iagram of static rig	jid frame	Able to under and find the f	stand the types of static rigid frame ultrum reaction force and sectional					
1st		2nd	Sectional force d	iagram of static rig	jid frame	Able tocalcula section force section force	ate the fulcrum reaction force and of a static rigid frame, and draw a					
Semeste r	1st Quarter	3rd	Sectional force d	iagram of static rig	jid frame	Able tocalcula	ate the fulcrum reaction force and of a static rigid frame, and draw a					
		4th	Influence line of	statically determin	ed beam	A function of	the line of influence of the statically eam can be calculated and the line					

		5th	Influer	nce line of statically	y determined be	am	determined		luence of the statically alculated and the line
		6th	Influer	nce line of statically	y determined be	am	A function of determined	f the line of infl	luence of the statically alculated and the line
		7th	Influer	nce line of statically	y determined be	am	calculate the		can be used to ion force and sectional beam.
		8th	Midter	m exam					
		9th	Membe	er force of static tr	uss		Understand and instabilit		usses and their stability
		10th	Membe	er force of static tr	uss				tically determinant g the nodal method.
		11th	Membe	er force of static tr	uss		Member ford can be obtain	es of statically ned using the i	deterministic trusses nodal method.
	2nd Quarter	12th	Membe	er force of static tr	uss		Member forc	es of statically ned using the i	deterministic trusses nodal method.
	Quarter	13th	Membe	er force of static tr	uss		The member	r force of a stat	tically determinate the section method.
		14th	Membe	er force of static tr	uss		The member	r force of a stat	tically determinate the section method.
		15th	Final e	xam				-	
		16th	Answe	r return					
		1st	Static	truss line of influer	nce		Able to draw	the line of infl	uence of a static truss.
		2nd	Static	truss line of influer	nce		Able to draw	the line of infl	uence of a static truss.
		3rd	Static	truss line of influer	nce		Able to draw	the line of infl	uence of a static truss.
	4		Stress	and Strain			Able to unde and Poisson'		strain, elastic modulus,
	3rd	5th	Stress	and Strain					
	Quarter	6th	Stress	tress and Strain				ng Hooke's law	on and axial force of a and the concept of
		7th	Stress	and strain				to obtain the	pt of stress and strain elongation and axial
254		8th	late m	idterm exam					
2nd Semeste r		9th	Cross	Sectional Quantitie	es		Understand beams.	the bending st	ress and neutral axis of
		10th	Cross	Sectional Quantitie	es		Able to unde section and to position of the	erstand the prir the centroid, a ne centroid.	mary moment of cross nd determine the
		11th	Section	nal Quantities			Able to unde		trical moment of inertia
	4th Quarter	12th	Section	nal Quantities			Able to obtain	in the geometr igure.	ical moment of inertia
		13th	Section	nal Quantities			Able to obta	in the moment ure.	of inertia of a
		14th	Section	nal Quantities			Able to obtaining the figures.	in the moment	of inertia of a group of
		15th	Year e	nd exam					
		16th	Answe	r return					
Evaluat	ion Meth	nod and	Weigh	t (%)					
		midterm/f exam	inal	quiz	portfolio	prese ude	entation/attit	other	Total
Subtotal		70	0 30 0			30	130		
Basic Prof	iciency	35		0 15 0			15	65	
Specialize Proficienc	ed y	35		0	15	0		15	65
Cross Are	a	0		0	0	0		0	0

A	Anan College		Year	2024		Course	Soil Mechanics		
Course 1	Informat	tion							
Course Co	de	1813D01			Course Categor	Course Category Specialized / Compulsory			
Class Forn	nat	Lecture			Credits	Schoo	edit: 2		
Departme	nt	Course of C	Civil Engineerin	g	Student Grade	3rd			
Term		Year-round	1		Classes per We	ek 前期:2	後期:2		
Textbook Teaching I		+ -		omoyuki et. al, CO	DRONA PUBLISH	ING CO., LTD	0.)		
Instructor		Yoshimura	Hiroshi						
2. Underst 3. Underst 4. Underst 5. Underst time.	tand the b tand the r tand the s tand the p tand the c	asic propertion mechanism of tress of the g ermeability in onsolidation of	soil compaction round and be a the ground and characteristics	e able to calculate on and be able to obtain the calculation of soil and be able to calculate to calculate to calculate to calculate to	create the compa effective stress a late the flow rat to calculate the	action curve. and the pore ve in the ground amount of gr	vater pressure.		
Rubric									
			Ideal Level		Standard Level		Minimum Level		
Achieveme	ent 1		The basic prop	perties of soil can plained, and the ities of soil can be	The basic property	erties of soil o	an		
Achievem	ent 2		The mechanis compaction ca explained, and curve can be o	n be properly I the compaction	The mechanism compaction car and the compa be created.	n be understo			
Achieveme	ent 3		properly expla effective stres	the ground can be ined, and the s and the pore e can be obtained.	The stress of the understood, an stress and the pressure can be	d the effectiv pore water	The stress of the ground can be understood.		
Achieveme	ent 4		can be proper	ity in the ground ly explained, and n the ground can	The permeabili can be underst rate in the ground calculated.	ood, and the	nd flow The permeability in the ground can be understood.		
Achieveme	ent 5		ground settlement and		The consolidati of soil can be u the amount of settlement and can be calculat	nderstood, ar ground settlement ti	The consolidation characteristics		
Achieveme	ent 6		be properly explained, and the shear strength of soil can be		The shear strende understood, strength of soil calculated.	and the shea			
Assigned	d Depart	ment Obje	ectives				·		
<u></u> 学習・教育		•							
Teachine	g Metho	d							
Outline		Construction soil. Therefore of them in The purpose In this court engineering This class with the control of the control of the court o	ore, it is impor design and cor se of this class rse, instructor g at construction will be mainly l	tant for the construction work. is to understand the who have been in company will us	uction engineer ne engineering p charge of resea se their experien	to understand properties of s rch and develone ce to give lec	viscenes of work related to the properties of soil and make use oil through examples of its use. Oppment related to geotechnical tures. ntific calculator because you will do		
Style		exercises a [60 class h	ours]	a avarcisas will als	o promote unde	retanding so	solve the exercises repeatedly. Also,		
Notice		carefully ob much as po	oserve the consossible.	struction work goir	ng on around yo	u, and compa	re the textbook with the real thing as		
Characte	eristics c	of Class / D	ivision in Le	earning	1				
☐ Active	☐ Active Learning ☐ A			CT	☑ Applicable to	o Remote Cla	ss		
Course I	Plan	 	eme			Goals			
				nd the basic prope	erties of soil		ration can be explained.		
				nd the basic prope			ound survey can be explained.		
				nd the basic prope			ntities of soil can be explained.		
1st	1st			nd the basic prope		Grain size an	d Grain size distribution can be		
Semeste r	Quarter			· '		explained.	of soil can be symbole ad		
		H		nd the basic prope	erues of soil		of soil can be explained.		
			il compaction	LIIdIdCLEFISTICS		Compaction curve can be created.			
		7th So	il compaction	characteristics		understood.	characteristics of soil can be		

		8th	Midterr	m examination							
		9th	Ground	l stress			Vertical stres		rden pressure of the		
		10th	Ground	l stress			Effective stre	Effective stress and pore water pressure can be calculated.			
	2 4	11th	Water	flow in the grour	nd		Head and wa	Head and water flow can be explained.			
	2nd Quarter	12th	Water	flow in the grour	nd		Darcy's Law	can be explai	ned.		
		13th	Water	flow in the grour	nd		Permeability	test can be e	xplained.		
		14th	Water	flow in the grour	nd		Flow net car	be explained			
		15th	Water	flow in the grour	nd		Seepage wat	ter pressureca	an be calculated.		
		16th	Return	of the final exan	nination						
		1st	Consol	idation			Concept of c	ompaction ph understood.	enomenon of saturated		
		2nd	Consol	idation			Compressive	properties of	soil can be understood.		
		3rd	Consol	idation			Outline of or can be unde	ne-dimensiona rstood.	al consolidation theory		
	3rd Quarter	4th	Consol	idation			Solution of o	ne-dimension n be understo	al consolidation ood.		
		5th	Consol	Consolidation Consolidation				nsolidation ca	n be understood.		
		6th	Consol					Consolidation test method can be understood.			
		7th	Consol	idation				Consolidation settlement and consolidation time can be calculated			
2nd		8th	Midterr	m examination							
Semeste r		9th	Shear	strength of soil			Outline of de understood.	Outline of destruction and strength of soil can be understood.			
		10th	Shear	strength of soil			Method of direct shear test can be understood.				
		11th	Shear	strength of soil			Method of tri-axial compression test can be understood.				
	4th Quarter	12th	Shear	strength of soil			Method of unconfined compression test can be understood.				
		13th	Shear	strength of soil			Drainage cor understood.	Drainage conditions for cohesive soil can be			
		14th	Shear	Shear strength of soil				Shear properties of sand can be understood.			
		15th	Shear	Shear strength of soil			Dynamic properties of soil can be understood.				
		16th	Return	Return of the final examination							
Evaluat	ion Metl	nod and	Weiaht	Veight (%)							
		Midterm/ exam.		Quiz	Portfolio	Pres	sentation/attit	Other	Total		
Subtotal		70		10 20 0				0	100		
Basic Prof	ficiency	0		0 0 0				0	0		
Specialize Proficienc		70		10	20	0		0	100		
Cross Are Proficienc		0		0	0	0		0	0		

,	Anan Co	llege	Year	2024			ırse tle	Hydraulics
Course	Informa	tion	1	1		, ,,,		
Course Co		1813E01			Course Categor	ry Sı	pecialize	d / Compulsory
Class Forr	nat	Lecture			Credits		chool Cr	
Departme	ent	Course of	Civil Engineering		Student Grade	31	rd	
Term		Year-roun	d		Classes per We	eek 前	期:2 後期	朝:2
Textbook Teaching		PEL水理学	実教出版					
Instructor	-	Osada Kei	ngo					
Course	Objectiv	'es						
	explain ir	nportant tech	nnical terms in H	ydraulics (Lamina	r flow, Turbulen	nt flow, Su	ubcritica	I flow, Supercritical flow, and so
3. Able to equations	understa	nd the contin	uity equation, B		and equation of	moment	um and	perform calculations using these
	understa	na the Berno	ulli equation con	sidering energy id	oss in the pipelin	ie and cai	cuiate p	ipe flow under various conditions.
Rubric			T. I. I.		G. 1 11 1			lac:
			Ideal Level		Standard Level			Minimum Level
Course Ol	bjective 1		important techi Hvdraulics (Lar	ninar flow, Subcritical flow,	Able to explain technical terms (Laminar flow, Subcritical flow flow, and so or	s in Hydra Turbulen , Supercr	ulics t flow,	Able to explain some important technical terms in Hydraulics.
Course Ol	bjective 2		and calculate h	sure application	Able to underst calculate hydro pressure applic buoyancy.	static pre	essure, nt, and	Able to have some ability to calculate hydrostatic pressure, pressure application point, and buoyancy.
Course Objective 3			the continuity of Bernoulli equat equation of mo	ion, and	Able to underst continuity equa- equation, and e momentum and calculations usi- equations.	ation, Ber equation of d perform	of า	Able to have some ability to calculate using the continuity equation, Bernoulli equation, and equation of momentum.
Able to thoroughly understand the Bernoulli Able to understand the Bernoulli equation considering energy loss in the pipeline and calculate pipe flow under various calculate				Bernoulli equation considering				
		tment Obj 票 B-2 学習・		-3 学習・教育到達原	度目標 D-1			
Teachin	g Metho	od						
Outline		In this cla	on of motion, th					essure, the continuity equation, of pipe flow under various
Style		This class in addition	-	•	er understand im	portant t	echnical	terms and calculation methods
Notice		- 1	-	ach time to condu	uct computation	al probler	n.	
Charact	eristics	-	Division in Lea		'			
☐ Active		01 01000 / 1	☐ Aided by IC		☑ Applicable to	o Remote	e Class	☐ Instructor Professionally Experienced
Course	rian	 				I		
		 	heme			Goals		
			nits and dimens					nits used in hydraulics.
2rd		ydrostatic press	ure		Able to e	explain s		
			nydrostatic pressu nydrostatic pressu		Able to explain the measurement of hydraulics pressure. Able to explain the measurement of hydraulics			
1st Quarter 1st		401 V	/ater hydraulic e	quipment			xplain tl	he Pascal's principle.
Semeste r		· · · · · · · · · · · · · · · · · · ·	ure that acts on a		Able to c	alculate	strength and application point of ure that acts on a plane surface. strength and application point of	
	6th Hydrostatic pressure that acts on a curved s 7th Hydrostatic pressure that acts on a curved s			hydraulion Able to c	hydraulics pressure that acts on a curved surfa Able to calculate strength and application point			
			idterm examina			riyurauli	s pressi	ure that acts on a curved surface.
		1 1.	uoyancy	uon		Able to u	ındersta	nd the Archimedes' principle. the buoyancy.
	2nd Quarter		tability of floatin	a hody				the stability of floating body.
	Qualtel							the stability of floating body.
	l	11th Stability of floating body				, wie to t	arculate	are stability or floating body.

			_								
		12th	Basic c	of flow			Able to understand important words and types of flow.				
		13th	Basic c	of flow uity equation			Able to expla	nin laminar and turb	oulent flows. ty equation.		
		14th	Bernou	ılli's theorem			Able to understand the Bernoulli's theorem.				
		15th		ılli's theorem momentum equati	ion		Able to understand the Bernoulli's theorem. Able to understand the Euler's momentum equation.				
		16th	Return	of final examination	n						
		1st	Applica	tion of Bernoulli's t	theorem		Able to calcu	late using the Bern	oulli's theorem.		
		2nd	Applica	ntion of Bernoulli's t	theorem		Able to calcu	late using the Bern	oulli's theorem.		
		3rd	Momer	ntum equation			Able to unde	rstand the moment	tum equation.		
		4th	Applica	tion of momentum	equation		Able to calcu	late using the mon	nentum equation.		
	3rd	5th	Applica	ntion of momentum	equation		Able to calcu	late using the mon	nentum equation.		
	Quarter	6th	Orifice Weir				Able to unde	rstand various weir	·S.		
		7th	Orifice Weir				Able to unde	rstand various weir	rs.		
2nd		8th	Midterr	m examination							
Semeste r		9th	Shear : Velocit	stress y distribution of lan	ninar flow			Able to understand the velocity distribution of laminar flow.			
		10th	Velocit	y distribution of tur	bulent flow		Able to understand the velocity distribution of turbulent flow.				
	4th	11th	Friction Mean v	n loss of pipeline flo velocity formula	ow		Able to understand friction loss of pipeline flow and Moody chart. Able to understand the mean velocity formulas.				
	Quarter	12th	Form lo	oss of pipeline flow			Able to explain the form loss of pipeline flow.				
		13th	Calcula	tion of various pipe	eline flows		Able to calculate various pipeline flows.				
		14th	Calcula	tion of various pipe	eline flows		Able to calculate various pipeline flows.				
		15th	Calcula	ntion of various pipe	eline flows		Able to calculate various pipeline flows.				
		16th	Return	of final examination	n						
Evaluati	ion Metl	nod and	Weight	t (%)							
		Midterm/F Exam		Quiz	Portfolio	Prese	entation/Attit	Other	Total		
Subtotal		70		0 30 0				0	100		
Basic Prof	iciency	10		0 10 0				0	20		
Specialize Proficienc	ed y	60		0 20 0				0	80		
Cross Are Proficienc		0		0	0	0		0	0		

Anan College Course Information		Year	2024	Course Title Surveying Practi		Surveying Practice 2	
Course	Informa	tion					
Course Co	ode	1813T01			Course Category	Specializ	ed / Compulsory
Class For	mat	Experimen	t / Practical tra	aining	Credits	School C	redit: 3
Departme	ent	Course of	Civil Engineerir	ng	Student Grade	3rd	
Term		Year-round	db		Classes per Wee	k 前期:2 後	期:4
	Matérials	-	, , ,		, Ltd.), Revised Su	urveying II (Co	rona Publishing Co., Ltd.)
Instructo	<u>r</u>	Tada Yuta	ka,Inoue Takaf	umi			
1. To be a 2. To be a 3. To be a	able to dra able to util	form topogra w monocentr ize the result	ic curves, easi	ng. 2. To be able to ng curves, and lon nmetric surveying. reying.	o draw contour lin gitudinal curves fo	es. or line surveyir	g.
Rubric							
			Ideal Level		Standard Level		Unacceptable Level
Achievem	nent 1		Perform topog surveying acci 80% of the tir	urately at least	Perform topogra surveying accura 70% of the time	tely at least	Perform topographical surveying accurately at least 60% of the time.
Achievem	Perform single and relaxation curves and curve installation more than 80% accurately. Perform single and relaxation curves and curve installation more than 70% accurates				nd relaxation e installation	Perform single and relaxation curves and curve installation more than 60% accurately.	
Achievem	Utilze photogrammetric surveying results at least 80% of the time. Utilze photogrammetric surveying results at least 70 of the time. Utilze photogrammetric surveying results at least 70 of the time.					s at least 70%	Utilze photogrammetric surveying results at least 60% of the time.
Achievem	nent 4			surveying and GIS at 80% of the time.	Utilize GNSS sur results at least 7	veying and GIS 0% of the time	Utilize GNSS surveying and GIS results at least 60% of the time
Assigne	ssigned Department Objectives						
学習・教育	育到達度目標	₹ B-2					
Teachin	ng Metho	d					
Outline		structures creating su	that support thus that support the contract that the contract the contract that the contract the	ne foundation of so course applies the	ocial activities, and	the study of s	cution of many construction surveying is the discipline for
			i vear of the co	ourse.	basic knowledge	or surveying a	nu practical surveying acquired in
Style		Lectures w	I year of the co vill provide an o	overview of each si	urvey and basic kr	nowledge and	calculation methods. Practical
Style Notice		Lectures w training wi Knowledge should tho	vill provide an oull include many of Surveying roughly review	overview of each so y hands-on exercis 1 and Surveying Po y and understand to	urvey and basic kr es to increase und ractice 1 from the he subject. Note t	nowledge and lerstanding of	
Notice	ceristics (Lectures w training wi Knowledge should tho the Assista	vill provide an o Il include many e of Surveying roughly review ant Professiona	overview of each signals, hands-on exercised and Surveying Program and understand the Surveyor certification.	urvey and basic kr es to increase und ractice 1 from the he subject. Note t	nowledge and lerstanding of	calculation methods. Practical the surveying content.
Notice		Lectures w training wi Knowledge should tho the Assista	vill provide an oull include many of Surveying roughly review	overview of each so y hands-on exercis 1 and Surveying Po y and understand to I Surveyor certifica earning	urvey and basic kr es to increase und ractice 1 from the he subject. Note t	nowledge and derstanding of second year is hat mastery of	calculation methods. Practical the surveying content.
Notice Charact Active	Learning	Lectures w training wi Knowledge should tho the Assista	vill provide an of the include many of Surveying roughly reviewent Professiona Division in Le	overview of each so y hands-on exercis 1 and Surveying Po y and understand to I Surveyor certifica earning	urvey and basic kres to increase und ractice 1 from the he subject. Note thion.	nowledge and derstanding of second year is hat mastery of	calculation methods. Practical the surveying content. required. Therefore, students this subject is a prerequisite for
Notice Charact	Learning	Lectures w training wi Knowledge should tho the Assista of Class / D	vill provide an of the control of th	overview of each so y hands-on exercis 1 and Surveying Po y and understand to I Surveyor certifica earning	urvey and basic kres to increase uncrease uncrease uncrease uncrease. Note the subject. Note the subject.	nowledge and derstanding of second year is hat mastery of Remote Class	calculation methods. Practical the surveying content. required. Therefore, students this subject is a prerequisite for
Notice Charact Active	Learning	Lectures w training wi Knowledge should tho the Assistant Class / E	vill provide an oil include many e of Surveying roughly review ent Professiona Division in Le Aided by Io	overview of each so y hands-on exercis 1 and Surveying Po y and understand to I Surveyor certifica earning	urvey and basic kres to increase unceractice 1 from the he subject. Note the subject. Applicable to	nowledge and lerstanding of second year is hat mastery of Remote Class	calculation methods. Practical the surveying content. required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced
Notice Charact Active	Learning	Lectures w training wi Knowledge should the Assistant of Class / E	vill provide an oil include many of Surveying roughly review ant Professiona Division in Le	overview of each so y hands-on exercis 1 and Surveying Po y and understand to I Surveyor certifica earning	urvey and basic kres to increase uncrease uncrease uncrease uncrease. Note the subject. Note the subject. Note the subject of	nowledge and lerstanding of second year is hat mastery of Remote Class	calculation methods. Practical the surveying content. required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced
Notice Charact Active	Learning	Lectures w training wi Knowledge should tho the Assistant Class / E	vill provide an of linclude many e of Surveying roughly review ant Professiona Division in Le Aided by Id Aided by Id neme riangulation riangulation	overview of each so y hands-on exercis 1 and Surveying Po y and understand to I Surveyor certifica earning	urvey and basic kres to increase uncrease uncrease uncrease uncrease. Note the subject. Note the subject. Note the subject. Applicable to	nowledge and lerstanding of second year is hat mastery of Remote Class Goals Triangulation P	calculation methods. Practical the surveying content. required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced
Notice Charact Active	Plan	Lectures w training wi Knowledge should tho the Assista of Class / E Th 1st Tr 2nd Tr 3rd Tr	ill provide an of linclude many of Surveying roughly review ant Professiona Division in Le Aided by Id	overview of each so y hands-on exercis 1 and Surveying Po y and understand to I Surveyor certifica earning	urvey and basic kres to increase uncrease uncrease uncrease uncrease uncrease uncrease. Note the subject. Note the subject is subject.	nowledge and lerstanding of second year is hat mastery of Remote Class Goals Triangulation Priangulation Priangu	calculation methods. Practical the surveying content. s required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced ractice ractice ractice
Notice Charact Active	Plan 1st	Lectures w training wi Knowledge should tho the Assista of Class / E Th 1st Tr 2nd Tr 3rd Tr 4th To	ill provide an of linclude many of Surveying roughly review ant Professiona Division in Le Aided by Id	overview of each soly hands-on exercis 1 and Surveying Poly and understand to an exercis I Surveyor certificate CT Urvey	urvey and basic kres to increase uncrease uncrease uncrease uncrease uncrease uncrease. Note the subject. Note the subject is subject. Note the subject is subject.	nowledge and lerstanding of second year is hat mastery of Remote Class Goals Triangulation Priangulation Propographical second year is hat mastery of the propographical second year.	calculation methods. Practical the surveying content. s required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced ractice ractice ractice ractice survey practice
Notice Charact Active	Plan	Lectures w training wi Knowledge should tho the Assistant of Class / E	ill provide an of linclude many of Surveying roughly review ant Professiona Division in Le Aided by Id Aided by Id meme riangulation riangulation riangulation popographical suppographical s	overview of each solve hands-on exercised hands-on exercised and Surveying Power and understand to the surveyor certificate arning CT	urvey and basic kres to increase uncrease uncrease uncrease uncrease uncrease uncrease. Note to the subject. Note to the subject. Note to the subject of the	nowledge and lerstanding of second year is hat mastery of Remote Class Goals Friangulation Priangulation Propographical stopographical stopog	calculation methods. Practical the surveying content. s required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced ractice ractice ractice ractice survey practice survey practice
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Notice Charact Active Course	Plan 1st	Lectures we training with Knowledge should the the Assistance of Class / E The state of the training with the Assistance of the training with the Assistance of the training with the Assistance of the training with the training	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le and Aided by Id and	pverview of each solven hands-on exercised hands-on exercised and Surveying Power and understand to surveyor certificate arning CT The survey	urvey and basic kres to increase uncrease un uncrease un uncrease un uncrease un	nowledge and lerstanding of second year is hat mastery of Remote Class Goals Friangulation Priangulation Priangulation Propographical sopographical sopographical sopographical sopographical sopographical sopographical so	calculation methods. Practical the surveying content. required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced ractice ractice ractice survey practice survey practice survey practice survey practice survey practice survey practice
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Notice Charact Course 1st Semeste	Plan 1st	Lectures w training wi training wi Knowledge should tho the Assistance of Class / E	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le Aided by Id	pverview of each solven hands-on exercised hands-on exercised and Surveying Power and understand to surveyor certificate arning CT The survey	urvey and basic kres to increase uncertainty and basic kres to increase uncertainty and the subject. Note the subject is subject. The subject is subject to the subject is subject. The subject is subject to the subject is subject. The subject is subject to the subject is subject to the subject is subject. The subject is subject to the subject is subject. The subject is subject to the subject is subject. The subject is subject to the subject is subject. The subject is subject to the subject is subject. The subject is subject to the subject is subject. The subject is subject to the subject is subject. The subject is subject to the s	nowledge and derstanding of second year is hat mastery of Remote Class Goals Friangulation Priangulation Priangula	calculation methods. Practical the surveying content. required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced ractice ractice ractice survey practice
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Notice Charact Charact Course	Plan 1st Quarter	Lectures w training wi Knowledge should tho the Assistance of Class / E	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le Aided by Id Ai	pverview of each solven hands-on exercised hands-on exercised and Surveying Power and understand to surveyor certificate arning CT The survey	urvey and basic kres to increase uncrease un uncrease un uncrease un uncrease un	nowledge and derstanding of second year is hat mastery of Remote Class Goals Goals Goographical stronggraphical stronggraphica	calculation methods. Practical the surveying content. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced Tractice Tractice Survey practice Survey p
Notice Charact Charact Course	Plan 1st Quarter	Lectures w training wi Knowledge should tho the Assistance of Class / E	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le Aided by Id Ai	pverview of each solven hands-on exercised hands-on exercised and Surveying Power and understand to surveyor certificate arning CT The survey	urvey and basic kres to increase uncrease un uncrease un uncrease un	Remote Class Goals Triangulation P Tr	calculation methods. Practical the surveying content. Therefore, students is this subject is a prerequisite for Instructor Professionally Experienced Tractice Trac
Notice Charact Active Course	Plan 1st Quarter	Lectures w training wi Knowledge should the Assistance of Class / E	ill provide an coll include many of Surveying roughly review ant Professiona Division in Le Divi	pverview of each solven hands-on exercised hands-on exercised and Surveying Power and understand to surveyor certificate arning CT The survey	urvey and basic kres to increase uncrease un uncrease un uncrease un uncrease un	Remote Class Goals Triangulation P Tr	calculation methods. Practical the surveying content. required. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced ractice ractice ractice survey practice survey practice survey practice survey practice survey practice ractice
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Notice Charact Active Course	Plan 1st Quarter	Lectures w training wi training wi Knowledge should tho the Assistance of Class / E	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le Aided by Id Ai	pverview of each so hands-on exercis 1 and Surveying Properties and understand to surveyor certificate arning CT urvey urvey urvey urvey ation	urvey and basic kres to increase uncrease un	Remote Class Goals Griangulation Priangulation Priangulation Propographical strongeraphical	calculation methods. Practical the surveying content. Therefore, students is this subject is a prerequisite for Instructor Professionally Experienced Tractice Tractice Tractice Survey practice Survey pract
Notice Charact Active Course	Plan 1st Quarter	Lectures w training wi training wi Knowledge should tho the Assistance of Class / E	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le Aided by Id Ai	pverview of each so hands-on exercis 1 and Surveying Property and understand to surveyor certificate earning CT Urvey Urvey	urvey and basic kres to increase uncertactice 1 from the he subject. Note the subject. Note the subject in the subject. Note the subject is a subject. Note the subject is a subject. Note the subject is a subject in the subject is a subject in the subject is a subject in the subject in the subject is a subject in the sub	Remote Class Goals Friangulation P Friangulation P Friangulation P Friangulation P Friangulation P Friangulation P Fropographical s	calculation methods. Practical the surveying content. Therefore, students this subject is a prerequisite for Instructor Professionally Experienced Tactice Tactice Tactice Survey practice Survey practice Survey practice Survey practice Survey practice Survey practice Tactice Ta
Notice Charact Active Course 1st Semeste r	Plan 1st Quarter	Lectures w training wi knowledge should tho the Assistance of Class / E	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le Aided by Id Ai	pverview of each so y hands-on exercis 1 and Surveying Properties 1 and Surveying Properties 2 and understand to the searning CT Urvey	urvey and basic kres to increase uncertactice 1 from the he subject. Note the subject. Note the subject is a subject is	nowledge and derstanding of second year is hat mastery of second year is hat mastery of second year is hat mastery of second year is rangulation Prinangulation Prinangulation Propographical strongeraphical strongeraphical strongeraphical strongeraphical strongeraphical strongeraphical strongeraphical strongeraphical strongeraphical strongeraphic survey propographic survey propographi	calculation methods. Practical the surveying content. Therefore, students is this subject is a prerequisite for Instructor Professionally Experienced Tractice Tractice Tractice Survey practice Tractice Trac
Notice Charact Active Course 1st Semeste r	Plan 1st Quarter 2nd Quarter	Lectures w training wi knowledge should tho the Assistance of Class / E	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le and Aided by Id and	pverview of each size hands-on exercise and Surveying Programme and understand to a surveyor certificate arning CT Tarrivey provey survey su	urvey and basic kres to increase uncrease un	Remote Class Goals Triangulation P Tr	calculation methods. Practical the surveying content. Therefore, students is this subject is a prerequisite for Instructor Professionally Experienced Tractice Tractice Tractice Survey practice Survey practice Survey practice Survey practice Survey practice Tractice Tracti
Notice Charact Active Course 1st Semeste r	Plan 1st Quarter 2nd Quarter	Lectures w training wi knowledge should tho the Assistance of Class / E	ill provide an oil include many of Surveying roughly review ant Professiona Division in Le Divis	pverview of each sy hands-on exercis 1 and Surveying Property and understand to surveyor certificate arning CT urvey urvey urvey urvey ation rveying rveying rveying rveying rveying rveying rveying rveying rveying	urvey and basic kres to increase uncrease un	Remote Class Goals Triangulation Priangulation Priangula	calculation methods. Practical the surveying content. Therefore, students is this subject is a prerequisite for Instructor Professionally Experienced Tractice Tractice Tractice Survey practice Survey practice Survey practice Survey practice Survey practice Tractice Tracti
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		8th	Midterm exam	ination						
		9th	GNSS surveyir	ng		GNSS surv	GNSS surveying practice			
		10th	GNSS surveyir	GNSS surveying GNSS surveying GNSS surveying		GNSS surv	GNSS surveying practice			
		11th	GNSS surveyir			GNSS surv	eying practice			
	4th	12th	GNSS surveyir			GNSS surv	eying practice			
	Quarte	r 13th	GNSS surveyir	NSS surveying			eying practice			
		14th	GNSS surveyir	GNSS surveying GNSS surveying		GNSS surv	eying practice			
		15th	GNSS surveyir			GNSS surv	GNSS surveying practice			
		16th	·							
Evaluati	ion Me	thod and	Weight (%)							
	E	Examination	n Portfolio					Total		
Subtotal	4	10	60	0	0	0	0	100		
Basic Proficienc	.y ()	10	0	0	0	0	10		
Specialize Proficienc		10	50	0	0	0	0	90		
Cross Are Proficienc	Cross Area		0	0	0	0	0			

,	Anan Co	llege	Year	2024		Course Title	Architectural Desing 1
Course	Informa	tion					
Course Co	ode	189340			Course Category		red / Elective
Class For		Seminar			Credits	School C	Credit: 2
Departme	ent		of Civil Engineerir	ng	Student Grade	3rd	/ HD . 0
<u>Term</u> Textbook	and/or	Year-rou	-	見立の「大洪」から	Classes per Weel		8期:2 5住宅のできるまで, ヤマベの木構造
Teaching	Matérials	新版DVD	O付		して フくる万 法取利が	以, 評価凶胜人	三仕七のてるるまで,ドイバの不備巨
Instructo			Akio,Moriyama T	akuro			
1. 木造(2. 木造(3. 木造(4. 設計 5. 講評会	主宅の1/505 D軸組・基礎 する行為の意	図・断面図の 程度の平面図 き構造・床組 議義や責任、	而白さを感得する	:る。 細等を理解し, 図面 。	iとして表現, 計算を -ーションができる.	行うことができ	₹వ.
Rubric			1		T		1
			理想的な到達し		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				I図・断面図の意味 Iしており、図面を Eる。	木造住宅の立面図 と描き方を理解し	・断面図の意味 ている。	木造住宅の立面図・断面図の意味 や描き方を十分には理解できない。
評価項目2	平価項目2 り、 尺・		り、内容の説明	i図が理解できてお 引も的確で必要な縮 はくことができる。	木造住宅の平面図: り、1/50程度の平 ができる。		
評価項目3	3		屋組・壁面詳細 , 説明や必要な きる。	基礎構造・床組・小 日を十分に理解し 計細図面で表現で	木造の軸組・基礎 屋組・壁面詳細を して表現できる。	構造・床組・小 理解し,図面と	木造の軸組・基礎構造・床組・小 屋組・壁面詳細の理解が不十分で ,図面として部分的にしか表現で きない。
評価項目4	とつとする问題息識を持つている が大きくて、面白そうに思える。 。				何がいい環境であったり、魅力的な住環境なのか、問題意識や興味、感受性を十分にはもてない。		
評価項目5	5		講評会等やプレ 計した建築物の ンが10分以上で	・ゼンボードにて設)プレゼンテーショ ごきる	講評会等やプレゼ 計した建築物のプ ンが5分以上できる	レゼンテーショ	: 講評会等やプレゼンボードにて設計した建築物のプレゼンテーションが1分以上できる
Assigne	d Depar	tment Ol	bjectives				
学習・教育	育到達度目標	票 B-1 学習	・教育到達度目標(C-2 学習・教育到達	度目標 D-3		
Outline	ng Metho	● 2 年科元の空間	をイメージできる。	ようにするとともに	設計を诵して、木浩	住宅の理解と鬼	断面図を描き、2次元の図面から3次 も力を育む機会にする。そのために、 ロトレースを行うことにより、木造
Style			間60時間				
Notice		が有利と ● 2 年次 の手に,	なる。 から5年次まで, 技術, 学術, 芸術	「はじめからおわり の力が備わっていく			こにより実務経験年数などの受験資格はどのでまなぶ」ことで、年々、自分
<u>Charact</u>	eristics	of Class /	/ <u>Division in Le</u>	earning			
☑ Active	Learning		☑ Aided by I	СТ	☑ Applicable to	Remote Class	☐ Instructor Professionally Experienced
Course	se Plan						
			Theme			Goals	
	1st 木造住宅の設計				[-		内容を活かしながら、自らが夢を描き ンをする能力を育む
	2nd 木造住宅の設計			これまでの学習に	内容を活かしながら、自らが夢を描き ンをする能力を育む		
		木造住宅の設計		į	 これまでの学習[
1st 4th 7		木造住宅の設計		-	、設計、デザインをする能力を育むこれまでの学習内容を活かしながら、自らが夢を描、設計、デザインをする能力を育む		
Quarter 5th		5th	木造住宅の設計		į.	これまでの学習に	内容を活かしながら、自らが夢を描き ンをする能力を育む
1st Semeste		6th	木造住宅の設計		į.	ニれまでの学習に 設計、デザイン	内容を活かしながら、自らが夢を描き ンをする能力を育む
		7th	木造住宅の設計		[これまでの学習に	内容を活かしながら、自らが夢を描き
		8th	中間考査		<u> </u>	叹可、プリイ.	ンをする能力を育む
		9th	木造住宅の設計		-		内容を活かしながら、自らが夢を描き
	2nd	10th	木造住宅の設計			これまでの学習に	ンをする能力を育む 内容を活かしながら、自らが夢を描き マーナー
	II MIDREOR	1	, ~_ i_ U~/ IXIII		1	===+ ーサイ`	ンをする能力を育む
	Quarter	11th	木造住宅の設計			これまでの学習に	内容を活かしながら、自らが夢を描き ンをする能力を育む

12th 本適住宅の設計									
1-301			12th	木造住宅の設計					
15th			13th	木造住宅の設計			これまでの学習内 、設計、デザイン	容を活かしながら をする能力を育む	、自らが夢を描き
15th プレゼンテーション 自らが設計、デザインした住宅について、プレゼンテーションする能力を育む 1st 木造住宅の設計 元1までの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインとする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインとする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインとする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインとする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインとする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインとする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記計、デザインとする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記述、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記述、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記述、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記述、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記述、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記述、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記述、デザインをする能力を育む 1元までの学習内容を活かしながら、自らが夢を描き、記述、デザインをする能力を育む 1元までの学習内容を活かしながら 1元までの学習の学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学習の学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描きまかしながら 1元までの学を描述を表すを表すを表すを表すを表すを表すを表すを表すを表すを表すを表すを表すを表すを			14th	プレゼンテーション	,		自らが設計、デザ	インした住宅につ	
16th 期末考査返却			15th	プレゼンテーション	/		自らが設計、デザ	インした住宅につ	いて、プレゼンテ
1st 木造住宅の設計 一次回任宅の設計 一次回任宅の設計 一次回任宅の設計 一次回任宅の設計 一次回行之をする能力を育む 一次回行之を可を能力を育む 日のが設計、デザインと方を信むでいて、プレゼンテーションする能力を育む 日のが設計、デザインと方を信むでいて、プレゼンテーションする能力を育む 日の可能力 日の可能の可能力 日の可能力			16th	期末考査返却					
Ard Quarter Aract + Ought 、設計、デザインをする能力を育む 3rd Quarter 本進住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 4th 大進住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 5th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 6th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 7th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 8th 中間考査 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 10th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 11th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 12th 大造住宅の設計 ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・			1st	木造住宅の設計					
Arabit			2nd	木造住宅の設計					
Article			3rd	木造住宅の設計					
Sth 本造住宅の設計			4th	木造住宅の設計					
Ath		Quarter	5th	木造住宅の設計					
Ath			6th	木造住宅の設計					
Semeste r 9th 未造住宅の設計 大造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 10th 未造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 11th 未造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 12th 未造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 13th 未造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 14th プレゼンテーション 自らが設計、デザインした住宅について、プレゼンテーションする能力を育む 15th プレゼンテーション 自らが設計、デザインした住宅について、プレゼンテーションする能力を育む Evaluation Method and Weight (%) 監験 発表 相互評価 態度 ポートフォリオ その他 Total Subtotal 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			7th	木造住宅の設計			これまでの学習内 、設計、デザイン	容を活かしながら をする能力を育む	、自らが夢を描き
T 9th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 4th Quarter 10th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 12th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 13th 木造住宅の設計 これまでの学習内容を活かしながら、自らが夢を描き、設計、デザインをする能力を育む 14th プレゼンテーション 15th プレゼンテーション 15th プレゼンテーション 16th 期末考査返却 Evaluation Method and Weight (%)			8th	中間考査					
Ath Quarter	r		9th	木造住宅の設計					
Ath Quarter			10th	木造住宅の設計			これまでの学習内 、設計、デザイン	容を活かしながら をする能力を育む	、自らが夢を描き
4th Quarter 12th 12th 12th 13th 大造住宅の設計 13th 大造住宅の設計 13th 大造住宅の設計 13th 大造住宅の設計 14th プレゼンテーション 15th プレゼンテーション 15th プレゼンテーション 15th 月 プレゼンテーション 16th 期末考査返却 15th 14th 15th 15th			11th	木造住宅の設計					
13th 木造住宅の設計			12th	木造住宅の設計			これまでの学習内 、設計、デザイン	容を活かしながら をする能力を育む	、自らが夢を描き
14th プレゼンテーション 15th プレゼンテーション 自らが設計、デザインした住宅について、プレゼンテーションする能力を育む 16th 期末考査返却 18th 対しているでは、アレゼンテーションする能力を育む 18th 対しているでは、アレゼンテーションする能力を育む 18th 対しているでは、アレゼンテーションする能力を育む 18th 対しているでは、アレゼンテーションする能力を育む 18th 対しているでは、アレゼンテーションする能力を育む 18th		Quarter	13th	木造住宅の設計					
Total 100			14th	プレゼンテーション	,				いて、プレゼンテ
Evaluation Method and Weight (%) 試験 発表 相互評価 態度 ポートフォリオ その他 Total Subtotal 0 0 0 100 100 基礎的能力 0 0 0 0 0 0 専門的能力 0 0 0 0 80 80			15th	プレゼンテーション	/		自らが設計、デザ ーションする能力	インした住宅につ を育む	いて、プレゼンテ
試験 発表 相互評価 態度 ポートフォリオ その他 Total Subtotal 0 0 0 0 100 100 基礎的能力 0 0 0 0 0 0 専門的能力 0 0 0 0 80 80									
Subtotal 0 0 0 0 100 100 基礎的能力 0 0 0 0 0 0 専門的能力 0 0 0 0 80 80	Evaluati	<u>ion Meth</u>	od and		•			_	
基礎的能力 0 0 0 0 0 0 専門的能力 0 0 0 0 80 80			検					その他	
専門的能力 0 0 0 0 0 80 80	-				+				
									_
分野横断的能力 0 0 0 20 20					_				
	分野横断的	能力 0		0	0	0	0	20	20

,	Anan Co	llege	Year	2024		Course Title	Civil Engineering Practice 1	
Course	Informa	tion					•	
Course Co		1893602			Course Categor	y Special	ized / Elective	
Class For	mat	Seminar			Credits	School	Credit: 2	
Departme	ent	Course of C	ivil Engineering]	Student Grade	3rd		
Term		Year-round			Classes per We	ek 前期:2	後期:2	
Textbook Teaching	and/or Materials	Handout						
Instructo	r	Yoshimura	Hiroshi,Moriyar	na Takuro				
Course	Objectiv	es						
2. Able to	utilize the	e basics of mat basics of docu	thematics and pument preparat	ohysics necessary ion methods requ	for civil enginee ired in civil engi	ering. neering.		
Rubric		T			1			
			Ideal Level		Standard Level		Minimum Level	
Achievement 1		1	the basics of m physics require engineering.		Able toutilize the mathematics are required in civil	nd physics	Able to understand the basics of mathematics and physics required in civil engineering.	
Achievem	Achievement 2 Assigned Department Ob		Able to acquire document crea required in civil able to use the	tion methods engineering and	Able to learn the document creat required in civil	tion methods	Able to understand the basics of document creation methods required in civil engineering.	
Assigne	signed Department Objectives							
	g Metho							
Outline	<u>, , , , , , , , , , , , , , , , , , , </u>	By reviewin	g (exercising) g, students will omote their un	the important iter be able to gain a derstanding of the	ns of mathemati solid understance content of spec	ics and physics ling, and by pr	that are the basis of civil acticing how to write sentences, as to be studied in the future.	
Style	After solving the distributed practice problems by yourself Style							
Notice		[60 class h		unclear points an	nd solving exerci	ses repeatedly	on your own, you will be able to	
Charact	aristics (- ' -	ivision in Le					
							☐ Instructor Professionally	
☐ Active	Learning		☐ Aided by IC	Т	☐ Applicable t	o Remote Clas	Experienced	
Course	Plan							
		The	eme			Goals		
		1st Re	view of mather	natics, physics, et	c.	in civil engine		
		2nd Re	view of mather	natics, physics, et	CC.	Able to review mathematics and physics required in civil engineering. Able to review mathematics and physics required		
		3rd Re	view of mather	natics, physics, et	ic.	Able to review mathematics and physics required in civil engineering. Able to review mathematics and physics required		
	1st Quarter	4th Re	view of mather	natics, physics, et	c.	in civil engine	ering.	
				natics, physics, et		in civil engine		
1st				natics, physics, et basics of engineer		Able to review mathematics and physics required in civil engineering. Able to practice on the basics of engineering.		
Semeste				pasics of engineer		•	te on the basics of engineering.	
[1		pasics of engineer			te on the basics of engineering.	
				pasics of engineer	_		te on the basics of engineering.	
		—		pasics of engineer	_		te on the basics of engineering.	
				pasics of engineer	_		te on the basics of engineering.	
			oanese compos	ition		Able to create number of cha	the sentence with predetermined aracters.	
	2	14th Jap	oanese compos	ition			the sentence with predetermined	
15th Japanese composition			Able to create number of cha	the sentence with predetermined aracters.				
		16th						
	1st Review of mathematics, physics, etc		c.	Able to review in civil enginee	mathematics and physics required ering.			
2nd Semeste	3rd	2nd Re	view of mather	natics, physics, et	CC.	Able to review in civil engined	mathematics and physics required ering.	
r	Quarter	3rd Re	view of mather	natics, physics, et	CC.	in civil engine		
		4th Re	view of mather	natics, physics, et	ic.	Able to review in civil enginee	mathematics and physics required ering.	

		5th	Reviev	v of mathematics	, physics, etc.		Able to revie	w mathemat eering.	ics and physics required	
		6th	Reviev	Review of mathematics, physics, etc.				Able to review mathematics and physics required in civil engineering.		
		7th	Exercis	ses on the basics	of engineering		Able to pract	ice on the ba	sics of engineering.	
		8th	Exercis	ses on the basics	of engineering		Able to pract	ice on the ba	sics of engineering.	
		9th	Exercis	ses on the basics	of engineering		Able to pract	ice on the ba	sics of engineering.	
		10th	Exercis	ses on the basics	of engineering		Able to pract	ice on the ba	sics of engineering.	
		11th	Exercis	ses on the basics	of engineering		Able to pract	ice on the ba	sics of engineering.	
		12th	Exercis	xercises on the basics of engineering				ice on the ba	sics of engineering.	
	4th Quarter	13th	Japane	ese composition			Able to creat number of cl		ce with predetermined	
		14th	Japane	ese composition			Able to creat number of cl	o create the sentence with predetermined er of characters.		
		15th	Japane	ese composition			Able to creat number of cl		ce with predetermined	
		16th								
Evaluat	ion Met	nod and	Weigh	t (%)						
		Midterm/f		Quiz	Portfolio	Prese	entation/attit	Other	Total	
Subtotal		0		20	80	0		0	100	
Basic Pro	ficiency	0		20	60	0		0	80	
Specialize Proficienc		0		0 0 0				0	0	
Cross Are Proficienc		0		0 20 0				0	20	

,	Anan Co	llege	Year		2024		(Course Title	Probability and Statistics
Course	Informa	tion							
Course Co	ode	1514A01				Course Categor	γ	Specializ	ed / Compulsory
Class Forr	mat	Lecture				Credits			c Credit: 2
Departme	ent		f Civil Enginee	ering	9	Student Grade		4th	
Term	d/	First Sem	ester			Classes per We	ek	前期:2	
Textbook Teaching		Shin Kakı	uritsu-tokei Ka	aite	iban, Dainihon Tos	sho			
Instructor	•	Sugino R	yuzaburo						
Course	Objectiv	es							
We car	n understa	nd basic pro	perties and d	et t	e fundamentals of the conditional pronce and standard	hability and Bay	's est	imation. bability dis	tributions.
Rubric									
			Ideal Level			Standard Level			Unacceptable Level
Achievement 1		computation fundamenta	n of als o and	of statistic apply these for	We can comput computation of fundamentals o processes.	the		We can compute the basic computation of the elementary statistic processes.	
We can propert condition estimate the var			We can und properties a conditional estimation a the various	and pro and	get the bability and Bay's apply these for	We can underst properties and conditional prob estimation.	aet th	ne	We can understand basic properties and get the elementaries of conditional probability and Bay's estimation.
We can ma mean value standard deprobability apply these problems.			e, va evia dist	a solution of ariance and tion of basic ributions and the various	We can make a mean value, va standard deviat probability distr	rianc	e and f basic	We can make a solution of mean value, variance and standard deviation of elementary probability distributions.	
Assigne	d Depar	tment Ob	jectives						•
学習・教育	到達度目標	票 B-2							
Teachin	g Metho	od							
Outline		We are to mathema	o make a conc atics to constru	cent ucti	tration for our clas on of understandi	s and use the kr ng of the probab	nowle pility a	dges and tand statisti	echniques about undergraduate cs.
Style		1. Review 2. Lecture 3. Short	v the importar e about the ne exercises.	nt fa ew		ious class.			
Notice		You will b	ouild up the go of this course	ood	aration and self-re style to do home required to compl	work of the prev	ious (atical	class. and Data	Science and AI Education Program
Charact	eristics	of Class /	Division in	Le	arning				
☐ Active	Learning		☐ Aided by	y IC	T	☐ Applicable to	o Ren	note Class	☐ Instructor Professionally Experienced
Course	Dlan								
Course	l lair	-	 Гhете				Goals	 S	
		1st A	Analyzing the	dat	a of one-dimensio	nal variable	We c distri	an underst bution and	and and explain of frequency its measures of center.
		2nd A	Analyzing the	dat	a of one-dimensio	nal variable	We c	an underst and the dis	and and explain of its distribution spersion.
		3rd A	Analyzing the	dat	a of one-dimensio	nal variable	bias a	and the dis	•
	1st	4th	Analyzing the	dat	a of two-dimensio	nal variables	scatt	er plot bias	and and explain of its distribution and the regression line.
	Quarter	5th	Analyzing the	dat	a of two-dimensio	nal variables	co-va	ariance and	and and explain of its distribution the correlation coefficient.
1st Semeste		6th	Analyzing the	dat	a of two-dimensio	nal variables	co-va	ariance and	and and explain of its distribution the correlation coefficient.
r		7th	The properties	s of	probability		of pr	obability ar	and and explain of the definition and the number of cases.
8th The properties of probability			theor	ems of the	and and explain of its probability addition and multiplication .				
		9th	The properties	s of	probability		We c	an underst ems of the	and and explain of its probability addition and multiplication .
	2nd	10th	Mid-term exar	nin	ation				
	Quarter		The probability distributions	y va	ariables and its pro	bability			and and explain of the discrete nomial distribution.
12th			The probability	v va	ariables and its pro	shahility T	variables and binomial distribution. We can understand and explain of the continuous variables and normal distribution.		

		13th	The probability variables and its probability distributions			We can under variables and	We can understand and explain of the continuous variables and normal distribution.			
		14th	The fundamental	The fundamentals of statistic			We can understand and explain of the statistics and sampling distribution.			
		15th	Final examination	Final examination						
		16th								
Evaluati	on M	ethod and	Weight (%)							
		Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal		60	0	0	0	40	0	100		
Basic Proficience	у	30	0	0	0	20	0	50		
Specialize Proficience			0	0	0	15	0	35		
Cross Are Proficience			0	0	5	0	15			

Anan College Course Information		e	Year	2024		Course Title	Engineering Mechanics	
Course Info	rmation							
Course Code	15	514B01			Course Categor	y Specialize	d / Compulsory	
Class Format	Le	ecture			Credits	Academic Credit: 2		
Department	Co	ourse of Ci	vil Engineering	J	Student Grade	4th		
Term	Fi	rst Semest	ter		Classes per We	ek 前期:2		
Textbook and, Teaching Mate		oki Hiroshi	, Kitani Susum	ıu : Kogyo Rikigakı	u [Dai 4 Han] (N	Morikita Shuppan)	
Instructor	M	oriyama Ta	akuro					
Course Obje	ectives							
1. Able to unde 2. Able to unde 3. Able to unde 4. Able to unde 5. Able to unde	erstand th erstand th erstand th	le concept le concept le concept	of the center of of the motion s of work and	energy.	ces of moments. ject.			
Rubric								
		I	deal Level		Standard Level		Unacceptable Level	
Achievement 1			of force balance balance, and to	أالمه ما ما ما ما ما	of force balance	almost calculate	Able to aimost understand the	
Achievement 2	<u> </u>	c	of the center of object and to co	onfirmly	Able to underst of the center of object and to a the problems re	lmost calculate	Able to almost understand the concept of the center of gravity of an object.	
Achievement 3				of a point and to late the			Able to almost understand the concept of the motion of a point.	
Achievement 4			of work and en	ergy, and to late the law of	Able to underst of work and en- almost calculate conservation of	e the law of	Able to almost understand concepts such as work and energy and the law of conservation of energy.	
Achievement 5			heories of vibr	ration, such as quency, and to late the	Able to underst theories of vibr period and freq almost calculate related to them	uency, and to e the problems	Able to almost understand of the basic theories of vibration, such as period and frequency.	
Assigned De	epartme	nt Obied	ctives					
学習・教育到達								
Teaching Mo								
Outline	Mo fo cc wi wi ap	r acquiring oncrete str ill play an ill deepen oplication t	g knowledge in ucture in the c active role in t their understa	n specialized fields construction field. I the construction fie nding of the conce al field of construc	such as structured in the future of basic force of the future of basic force	ral mechanics, so hat students who must naturally n e. but we will also	oncept that serves as the basis bil mechanics, hydraulics, and a aim to become engineers who haster. In this lecture, students of explain examples of their estruction, such as vibration and	
In class, we will explain as many examples as possible, and ask students to deepen their understa giving them exercises as self-study assignments. If necessary, there will be time for students to so exercises during class. [Class time: 30 hours] Since this course is a learning credit course, reports will be conducted as post-study.					time for students to solve			
Notice	Since this course is a review and application of physics, physics experiments, and exercises in the sec year, it is desirable to thoroughly review the basic knowledge of these subjects. I want you to answer homework and exercises while thinking about it thoroughly with your own mind using paper and pend try to understand the content.						, and exercises in the second ets. I want you to answer	
Characterist	tics of C	lass / Di	vision in Lea	arning				
☐ Active Learning ☐ Aided by ICT					☐ Applicable to	o Remote Class	☐ Instructor Professionally Experienced	
Course Plan								
Course Fidit	<u> </u>	The	eme		I	Goals		
	1st	ford				Able to understa	nd the concept of composition on of force, and moment.	
		ilibrium of force	 ce			nd the concept of equilibrium of		
	1	- +					nd the concept of equilibrium of	
1st Semeste 1st	rter 3rd	equ	illibrium of mo	ment				
	rter 3rd 4th		ter of gravity	ment		monent.	nd the center of gravity and	

		6th	dynamics of rigid	body		Able to under the moment of	stand the balan of inertia.	ce of rigid bodies and		
		7th	dynamics of rigid	body		Able to under the law of cor	Able to understand the motion of rigid bodies and the law of conservation of angular momentum.			
		8th	[Midterm examin	nation]						
		9th	work and energy			Able to under	stand the conce	ept of work.		
		10th	work and energy			Able to under	stand the conce	ept of energy.		
		11th	work and energy			Able to under conservation	Able to understand the concept of the law of conservation of energy.			
	2nd	12th	vibration			Able to under harmonic mot	stand the conce	ept of simple		
	Quarter	13th	vibration			Able to under	stand the conce	ept of free vibration.		
		14th	vibration			Able to under vibration.	Able to understand the concept of damped vibration.			
		15th	vibration				Able to understand the concepts of forced vibration and resonance.			
		16th	[Final examinati	[Final examination]						
Evaluat	ion Met	hod and	Weight (%)							
		xamination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal	70	0	0	0	0	30	0	100		
Basic Proficienc	_{.y} 3!	5	0	0	0	15	0	50		
Specialize Proficience		5	0	0	0	15	0	50		
Cross Are	oss Area		0	0	0	0	0			

А	nan Col	lege	Year	2024		Cou		 Materials	
Course I	nformat	ion				110	ie		
Course Coo		1814B03	3		Course Categor	v Sn	ecialize	d / Compulsory	
Class Form		Lecture	,		Credits			Credit: 2	
Departmen			of Civil Enginee	rina	Student Grade	4tl		ordani z	
Term		First Ser		9	Classes per Wee				
Textbook a Teaching M		Construc	ction Materials	(Gakugei Publisher)	•	<u>, </u>			
Instructor		Kadono	Takuma						
Course C)bjective	es							
2. Able to uexplain the 3. Able to ue 4. Able to ue 4.	understan em. understan understan	id the char id the char id the prop	acteristic and s acteristic and s erties of fresh	standard of wood, w standard of concrete	ood material, stor , and explain ther anism properties o	ne, glass- m. of post-cu	based r	ials, and explain them. naterial, metal and coating, and ncrete, and explain them. them.	
Rubric									
				f attainment	Standard level of		nent	Minmum level of attainment	
Attainment	t Target 1		construction		Able to understa category, funda characteristic ar construction ma explain them.	mental nd standa		Able to explain the category, fundamental characteristic and standard of construction materials.	
Attainment	t Target 2		wood, wood glass-based and coating	ic and standard of I materials, stone, materials, metals s, and enforce the presentation and	Able to understa characteristic ar wood, wood ma glass-based ma and coatings, ar	nd standa iterials, si terials, m	tone, ietals	Able to explain the characteristic and standard of wood, wood materials, stone, glass-based materials, metals and coatings.	
Attainment	t Target 3		concrete, ar	ic and standard of and enforce the the esentation and	Able to understa characteristic ar concrete, and ex	nd standa		Able to explain the characteristic and standard of concrete.	
Attainment	t Target 4		mechanism curing conc	of fresh concrete and properties of post- rete, and enforce plem presentation	Able to understa properties of fre mechanism proj curing concrete, them.	esh concre perties of	post-	Able to explain the properties of fresh concrete and mechanism properties of post-curing concrete.	
Attainment	t Target 5		inspectión o structures,	concrete and for concrete and enforce the the esentation and	Able to understa durability of con inspection of co- structures, and	ncrete and ncrete		Able to explain the durability of concrete and inspection of concrete structures.	
Assigned	l Denart	ment Oh							
学習・教育			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Teaching									
Outline	,	Knowled maintair restorati designed to enhar inspectio	or stuructures won, economy and to acquire specific study habit on of concrete study habit on of concrete study habit on of concrete study habit of co	ith due consideratio ind encironmental fr ecialist basic konwle s. In this course, fac structures at compa	n for the structual iendliness. This co dge on the main r culty member who ny use its experie	I stability ourse is le materials was in concept to team of the model	, usabili ecture-b used in charge c	gineers who construct and ty, durability, functionality, based classroom lecture and is constraction projects, as well as of research, development and course.	
Style				s+Final Exam+Self			se is an	academic credit course.	
Notice		This cou course the Engineer	rse, which is cl nat provides kr ing Experimen of topics covere	assified as a JABEE nowledge of various	specialism: mater construction mater neering 3 and other but it is importan	rials and lerials and er course	oiotechr is direct s in the	nology, is a basic construction tly linked to Construction fourth year onwards. The wide se individual topics in isolation,	
Characte	ristics c	•	Division in	•	<u> </u>				
☐ Active L		/	☐ Aided by		☐ Applicable to	Remote	Class	☐ Instructor Professionally Experienced	
Course P	Plan								
COUISC F	iuii		Theme		1	Goals			
1st 1st	1st	Guidance	construction materia	als (Able to un significan explain the	ce, plar ne cateo	nd and explain the goal, n, textbook, note. And able to gory, standard, fundamental truction materials.		
	Quarter	2nd	Wood and woo	od material		Able to exproperty	xplain th	ne category, standard and I and wood material.	
		3rd	Wood and woo	ood and wood material			property of wood and wood material. Able to explain the category, standard and property of wood and wood material.		

							1		1		
		4th	Stone				Able to explanation of s	ain the category, stone.	standard and		
		5th	Glass-l	based material			Able to explanation	ain the category, s glass-based mate	standard and rial.		
		6th	Metal a	and coating			Able to explanation of its property of its pro	ain the category, s netal and coating	ne category, standard and n-based material. ne category, standard and and coating. ne category, standard and and and coating. ne category, standard and and and coating. ne property and characteristic of regate. ne property and characteristic of eaknesses of concrete. And able ater content, density, particle size to faggregate. ne properties of fresh concrete concrete. ne properties of fresh concrete concrete. ne deterioration factors related to crete. nd the characteristic of concrete concrete. nd the characteristic of concrete concrete. ne inspection method using spection equipment, and basis of foncrete structures.		
		7th	Metal a	and coating			Able to explanation of its property of its pro	to explain the category, standard and erty of metal and coating.			
		8th	8th Midterm exam								
		9th	Return	of answer			Able to expla	ain the property a aggregate.	nd characteristic of		
		10th	Concre	ete			strengths and to explain the	d weaknesses of	concrete. And able density, particle size		
		11th	Concre	ete			Able to explain the properties of fresh concrete and post-curing concrete.				
	2nd	12th	Concre	ete			Able to explain and post-cui	ain the properties ring concrete.	of fresh concrete		
	Quarter	13th	Concre	ete			Able to explain durability of	ain the deteriorati concrete.	on factors related to		
		14th	Concre	ete			structures(R				
		15th	Concre	ete			nondestructi	Able to explain the inspection method using nondestructive inspection equipment, and basis of coutermeasure of concrete structures.			
		16th	(Final	exam)Return of	answer						
Evaluati	on Met	hod and	Weigh	t (%)			•				
		Regular E	_	Short Test	Portfolio		entation and usiasm	Others	Total		
Subtotal		60		0	40 0		-	0	100		
Basic com	petence	20	0 10 0			0					
Profeesior competen	esional 30 0 20 0			0	50						
Cross-sec	sectoral 10 0 10		0		0	20					

,	Anan Co	llege	Year	2024		Course Title	Structural Engineering 1		
Course	Informa	tion							
Course Co	ode	1814C02			Course Categor	y Specializ	ed / Compulsory		
Class Forr	mat	Lecture			Credits		c Credit: 2		
Departme	ent		Civil Engineering	9	Student Grade	4th			
Term		Second Se	mester		Classes per Wee	eek 後期:2			
Textbook Teaching				umon Yokuwaka	ıru Saishin "Hashi"	' no Kagaku to	Gijutsu(Shuwa System)		
Instructor		Moriyama	Takuro						
1. Able t 2. Able t 3. Able t	to explain to explain	the character the structura the design m	l form of the bri ethods of bridge	oridges in Japan dges and the me es. support bridges	echanism of each p	oart.			
Rubric									
			Ideal Level		Standard Level		Minimum Level		
Achievem	vement 1 characteristics of various characteristic		Able to explain characteristics of in Japan and ov	of major bridges	Able to explain only the basics of the characteristics of major bridges in Japan and abroad.				
Achievem	ent 2		Able to explain structural form and the mechapart.	of the bridge	Able to explain form of the brid mechanism of e	lge and the	Able to explain only the basics of the structural form of the bridge and the mechanism of each part.		
Achievem	ent 3		Able to explain methods of bri	the design dges in detail.	Able to explain design methods detail.		Able to explain only the basics of the design methods of bridges.		
Achievem	ent 4		Able to explain various techno support bridge	logies that	Able to explain various technolosupport the brid	ogies that	Able to explain only the basics of the technology that supports the bridge.		
	•	tment Obj	ectives						
	<u>育到達度目標</u> ig Metho								
Outline		architectures structures detailed ca of bridges and the se	re. In this lectur , such as types alculations of bri , so the first hal cond half will ex	e, we will explain of structures, de dge design all of f will mainly prov splain the metho	n the basic knowle sign methods, and a sudden, we hop vide an overview o d of bridge design	edge of bridges, I related techno be that students If the various br and the related	n civil engineering and which are familiar among logies. Rather than making s will be interested in the structure idge structures with photographs, d technologies.		
Style		be explain may be in- will be give	ed. In that case cluded by comp	, additional mate anies that are ac assignment each	erials will be distrit tually designing bi	outed. If necess ridges. Since th	ary, special lectures and tours is course is a credit course, you he class. [30 hours of class time +		
Notice		be submition if you nabsences, reason, it of structures.	ted by the dead niss a class, plea the submission will not be subje te and design m	line using the prosesse come to pick deadline will be ect to evaluation ethods of bridge	escribed form. As a up the assignmen extended, but if th I hope that stude s and related tech	a general rule, and form as soon as soon in a submission is ents will have a nologies that the	ges. Self-study assignments must assignments are given every time, as possible. In the case of special s submitted late for no special good understanding of the basics ey have learned in this course, ecture on Structural Engineering 2.		
Charact	eristics	of Class / [Division in Le	arning	1				
□ Active	Learning		☐ Aided by IC	т	☐ Applicable to	Remote Class	☐ Instructor Professionally Experienced		
Course	Plan								
		Т	neme			Goals			
			. Abstracts of b	oridges			the abstracts of bridges.		
			. Types of brid				the types and characteristics of		
		3rd 2	. Types of brid	ges			the types and characteristics of		
	3rd	4th 2	. Types of brid	ges	1		the types and characteristics of		
2nd Semeste	3rd Quarter		. Structural for	m and the mech	anism of the	Able to explain	the structural form of the bridges nism of each part.		
r		6th 3		m and the mech	anism of the	Able to explain	the structural form of the bridges		
			. Structural form and the mechanism of the				explain the structural form of the bridges emechanism of each part.		
			. Structural for	m and the mech	anism of the	Able to explain	the structural form of the bridges		
		/tri bi			anism of the	Able to explain	•		

	10th	5. De	sign of bridges			Able to explain the loads to	nin the materials us be considered for b	sed for bridges and bridge design.	
	11th	5. De	sign of bridges			Able to explain the design methods of bridges.			
	12th	6. Te	6. Technologies of bridges A CC			Able to explain the techniques required for the construction of bridges, such as joining members.			
	13th	6. Te				Able to explain the construction methods for constructing bridges.			
	14th	6. Te				Able to expla	nin the basics of ear	rthquake ges.	
	15th	6. Te	chnologies of bridge	es		Able to expla	Able to explain the basics of deterioration and maintenance of bridges.		
	16th	【Final	examination]						
Evaluation Met	hod and	Weigh	t (%)						
	midterm/fi exam	nal	quiz	portfolio	prese	entation/attit	other	Total	
Subtotal	70		0	30	0		0	100	
Basic Proficiency	35		0	15	0		0	50	
Specialized Proficiency			0		0	50			
Cross Area Proficiency			0		0	0			

,	Anan Co	llege	Year	2024			ourse Title	StructuralMechanics2	
Course	Informa	tion							
Course Co	ode	1814C04			Course Categor	У	Specialize	ed / Compulsory	
Class For	mat	Lecture			Credits		Academic	Credit: 2	
Departme	ent	Course of	Civil Engineerin	g	Student Grade		4th		
Term		First Sem	ester		Classes per We	ek	前期:2		
Textbook Teaching				ou Rikigaku [Dai 2	han • Shinsoubai	n] Joi	u – Seite	ihen– (Morikita Shuppan)	
Instructo		Moriyama	Takuro						
1 The def 2 The def	flection of	beam can be beam can be	calculated by e	ising the method o lastic load method ntric load acts can	1.	differe	ential equa	ation of the deflection.	
Rubric									
			Ideal Level		Standard Level			Unacceptable Level	
Achievem	nent 1		be accurately using the met	of the beam can calculated by hod of integrating I equation of the	The deflection of the almost calcuthe method of indifferential equipments of the deflection.	llated b ntegra	by using the	The method for calculating the deflection of the beam by integrating the differential equation of the deflection can be understood.	
Achievem	nent 2		The deflection be accurately using elastic lo		The deflection of the almost calculustic load met	lated b	peam can by using	The method for calculating the deflection of the beam by using elastic method can be understood.	
Achievem	nent 3		which the ecce	short column on entric load acts tely calculated.	The stress of sh which the eccer can be almost of	ntric lo	ad acts	The method for calculating the stress of short column on which the eccentric load acts can be understood.	
Assigne	d Depar	tment Obj	ectives						
	到達度目標								
Teachin	ng Metho	od							
Outline		architectu particular when a lo there is ti Classes ar please wr	re. The goal of ly important in sad is applied. Ir me. re mostly based ite down the column we will explain a	this course is to un structural mechani n order to deepen on board writing. ntents written on t s many examples	nderstand the the cs, such as the c their understand When I will explicate board proper as possible, and	eories calculating, we ain corly in a if neces	and calculion methors plan to content that notebook	will give exercises as homework.	
Notice	orieties	the calcul	ation of deflection	on, please deform	nderstand the co the formula prop	ntent. perly a	Since the nd careful	c and think about it thoroughly amount of calculation increases in ly so as not to make a mistake.	
Charact	eristics	of Class /	Division in Le	-				☐ Instructor Professionally	
☐ Active	Learning		☐ Aided by I	CT	☐ Applicable to	o Remo	ote Class	☐ Instructor Professionally Experienced	
Course	Plan								
554.50		Т	heme			Goals			
			leflection of stat	ic hoam			oundersta	nd the outline of elastic	
			leflection of stat			Able to	ethod of ir	e the deflection of beam by using ntegrating the differential equation	
		3rd d	leflection of stat	ic beam		Able to	ethod of ir	e the deflection of beam by using tegrating the differential equation	
	1st	4th d	leflection of stat	ic beam		Able to	ethod of ir	e the deflection of beam by using ntegrating the differential equation	
1st Semeste	Quarter	5th d	leflection of stat	ic beam		Able to	ethod of ir	e the deflection of beam by using tegrating the differential equation	
r		6th d	leflection of stat	ic beam		Able to	deflection calculate ethod of ir	e the deflection of beam by using ntegrating the differential equation	
		7th d	leflection of stat	ic beam		Able to	deflection o understa nethod.	and the overview of the elastic	
		8th	[Midterm exami	ination]					
	2nd	9th deflection of static beam					Able to calculate the deflection of beam by the elastic load method.		
	Quarter	10th d	leflection of stat	ic beam			able to calculate the deflection of beam by using the elastic load method.		

		11th	deflection of station	c beam		Able to calculat the elastic load	e the deflection method.	of beam by using		
		12th	column				nd the difference	ce between beam between short		
		13th	column				Able to calculate the stress of short column on which the eccentric load acts.			
		14th	h column			which the ecce	Able to calculate the stress of short column on which the eccentric load acts, and able to lunderstand the core of column.			
		15th	[Final examination	on]						
		16th	Return of final exa	amination						
Evaluation	on Me	thod and V	Veight (%)							
	E	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal	7	70	0	0	0	30	0	100		
Basic Proficiency	, 3	35	0	0	0	15	0	50		
Specialized Proficiency		35	0	0	0	15	0	50		
Cross Area Proficiency)	0	0	0	0	0	0		

,	Anan Co	llege	Year	2024		Course Title	StructuralMechanics3	
Course	Informa	tion	<u> </u>	1			•	
Course Co		1814C05	,		Course Category	/ Specializ	zed / Compulsory	
Class For	mat	Lecture			Credits	Academ	ic Credit: 2	
Departme	ent	Course o	f Civil Engineerir	ng	Student Grade	4th		
Term		Second 9	Semester		Classes per Wee	k 後期:2		
Textbook Teaching	Matérials	shinnsou	bann ge fuseitei	shinnsoubann jyo bann (Morikita syu	u seiteibann (Mo ppann)	rikita syuppanı	n) 、Kouzourikigaku dai2han・	
Instructor		Inoue Ta	ıkarumı					
1 It is po 2 Using 3 Under	the energy stand the	obtain the by method, it	stability/instabil	otain the displacemity and static/instal	bility of structure:	S.	ion of the static beam. can. statically indeterminate order.	
Rubric								
			Ideal Level		Standard Level		Unacceptable Level	
Achievem	Achievement 1		The buckling I column can be accurately.	oad of the long e determined	The buckling loa column can be a	d of the long Ilmost obtaine	Able to understand how to find the buckling load of a long column.	
Achievem	ent 2		All of the learn methods can a determine tru and static bea		Two of the learn methods can be determine truss and static beam	used to displacement	Any one of the learned energy methods can be used to determine truss displacement and static beam deflection.	
Achievem	ent 3		Able to accura difference bet of stable/unst static/unstable	ately explain the ween the concepts able and e structures.	The difference b concepts of stab and static/static of structures car explained.	ility/instability indeterminand		
Achievem	ent 4			ordér can be	statically indeter with a low static	he fulcrum stress of a simple atically indeterminate beam ith a low statically determinate order can be		
Assigne	d Depar	tment Ob	jectives					
	g Metho							
Outline		This lect year. In First, we the station	ure is the final part of the class on structural mechanics that I have been studying since my second addition, students will learn the concepts, ideas, and calculation methods of structural mechanics. aim to understand the buckling of long columns and a method called the energy law. In addition to cally determined beams that we have studied so far, we also aim to understand how to obtain the reaction force of statically indeterminate beams.					
Style		Classes a	are basically written on the blackboard. You may need to explain content that is not included in the , so please write down what you have written on the board in your notebook.					
Notice		necessar while thi	y. For examples nking enough in	and homework, pl	ease use paper a ally in the second	nd a pencil and half, the diffic	roblems are given as homework as d try to understand the contents ulty increases and the amount of so as not to make any mistakes.	
Charact	eristics of	of Class /	Division in Le	earning				
□ Active	Learning	•	☐ Aided by I	СТ	☐ Applicable to	Remote Class	☐ Instructor Professionally Experienced	
Course	Plan							
Course	I IUII		Theme		10	Goals		
			column		ī		e outline of Eulerian buckling of a	
		2nd	column		9	Able to underst slenderness rat the long colum	tand the effective buckling length, tio, intermediate column, etc. of n.	
		3rd	column		-		ad of a long column can be	
2nd Semeste	3rd Quarter	4th	energy method		l c	use the law of	e concept of work and energy, and conservation of energy to displacement and deflection of a	
r		5th	energy method			Inderstand the work.	e concept of the principle of virtual	
		6th	energy method		t	russ displacen	nethod can be used to determine nents and deflections.	
			energy method		t	Castigliano's the displaceme	eorem can be used to determine ant and deflection of a truss.	
	4th	8th	late midterm exam			Indoretand the	concepts of stability/instability	
	4th Quarter 9th statically indeterminate structure				ā	Understand the concepts of stability/instability and static/static instability of structures.		

		10th	statically indetern	ninate structure		indeterminate indeterminate method of deco	The fulcrum reaction force of a statically indeterminate structure with a low statically indeterminate order can be obtained by using the method of decomposing into a statically deterministic structure.			
	11th s		Statically indeterminate structure			lindeterminate	The principle of least work can be used to obtain the fulcrum reaction force of a statically indeterminate structure with a low statically indeterminate order.			
	12th statically indeterminate struct			ninate structure		The deflection simple staticall problems.	The deflection angle method can be used to solve simple statically indeterminate structural problems.			
	13th s		statically indeterminate structure			The deflection simple staticall problems.	angle method y indeterminat	can be used to solve e structural		
		14th	statically indeterr	ninate structure		The triple mom simple staticall problems.	The triple moment method can be used to solve simple statically indeterminate structural problems.			
		15th	end of year exam							
		16th	Return of answer	•						
Evaluati	on Met	thod and \	Weight (%)							
	E	xamination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal	7	0	0	0	0	30	0	100		
Basic Proficience			0	0	0	15	0	50		
Specialize Proficience	ecialized ficiency 35 0 0		0	0	15	0	50			
Cross Are Proficience	Area o o o		0	0	0	0				

	Anan Co	llege	Year	2024		Course Title	Geotechnical Engineering		
Course	Informa	tion	•						
Course C	ode	1814D01			Course Category	Specializ	ed / Compulsory		
Class For	mat	Lecture			Credits	Academi	Credit: 2		
Departme	ent	Course of	Civil Engineerin	g	Student Grade				
Term		First Sem	ester		Classes per Wee	k 前期:2			
	Matérials			omoyuki et. al, CC	DRONA PUBLISHII	NG CO., LTD.)			
Instructo	r	Yoshimur	a Hiroshi						
1. Unders 2. Unders 3. Unders 4. Unders	stand the l stand the s	earth pressur bearing capa slope stability	city of the grour , of the ground a	structure and be and be able to cand be able to calc es of ground disas	calculate the beari	ng capacity of analysis.	ure against at the structure. the ground. nethods.		
Rubric			I		la		T		
			Ideal Level		Standard Level		Minimum Level		
Achievem	nent 1			ist at the	The earth pressum the strucuture cand the earth properties the structure calculated.	an be explaine essure against			
Achievem	nent 2		The bearing ca ground can be explained, and of the ground	apacity of the properly I bearing capacity can be calculated.	The bearing capa ground can be e bearing capacity can be calculated	xplained, and of the ground	The bearing capacity of the ground can be understood.		
Achievem	nent 3		The slope stab can be properl the stability ar calculated.	ility of the ground y explained, and nalysis can be	The slope stability can be explained stability analysis calculated.	l, and the	d The slope stability of the ground can be understood.		
Achievem	nent 4		The current sit principles of grand ground immethods can be explained.	round disasters aprovement	The current situal principles of ground ground impromethods can be explained.	f ground disasters improvement principles of ground disasters			
Assigne	d Depar	tment Obj					•		
	•		, 教育到達度目標 C)-2					
Teachir	ng Metho	nd							
Outline		soil.There of them in The purpo In this co engineeri	efore, it is import n design and cor ose of this class urse, instructor ng at construction	tant for the construction work. is to understand the tounderstand the tounderstand the toungen in company will us	uction engineer to ne engineering pr charge of researc se their experience	o understand the operties of soil h and develop e to give lectur	through examples of its use. ment related to geotechnical res. fic calculator because you will do		
Style		exercises [30 class	as needed. hours, 60 hours	of self-study time]	•	,		
Notice		much as	possible.		o promote unders ng on around you	tanding, so so , and compare	lve the exercises repeatedly. Also, the textbook with the real thing as		
Charact	eristics	of Class /	<u>Division in Le</u>	arning	ı		T		
□ Active	Learning		☐ Aided by IO	CT	☑ Applicable to	Remote Class	☑ Instructor Professionally Experienced		
Course	Plan								
Cour 3C	. 1011	Т	heme		10	Goals			
				gainst at the struc	turo T		pressure against at the structure d.		
		2nd E	arth pressure a	gainst at the struc			ressure theory can be understood.		
				gainst at the struc	turo		pressure theory can be		
	1st	4th E	arth pressure a	gainst at the struc	ture (Outline of the sexplained.	tability of retaining walls can be		
	Quarter	5th E	Bearing capacity	of the ground	F	orm of founda	tion can be explained.		
1st Semeste r		6th E	Bearing capacity	of the ground	E	Bearing capacit explained.	y of shallow foundations can be		
7th Bearing capacity of the grou	of the ground	E	Bearing capacit explained.	y of deep foundations can be					
		8th N	1idterm examina	ntion					
		9th S	Slope stability of	the ground		Safety factor in	slope stability can be explained.		
	2nd Quarter	10th S	Slope stability of	the ground	e ground S		Stability analysis of semi-infinite slopes can be calculated.		
		11th S	Slope stability of	the ground		Stability analysi alculated.	s of splitting method can be		

		12th	Slope	stability of the grou	nd		Critical circle	can be explained.			
		13th	Ground metho	d disasters and gro	und improvement		Ooccurrence disasters car	Ooccurrence and damage situation of ground disasters can be explained.			
		14th		round disasters and ground improvement nethods				Major ground disasters (landslides, debris flows, liquefaction) can be explained.			
	15th Ground disasters and ground improvement methods				Principles of ground improvement can be understood, and Main ground improvement methods can be explained.						
		16th	Return	of the final examir	nation						
Evaluatio	n Met	hod and '	Weigh	t (%)							
		Midterm/fii exam.	nal	Quiz	Portfolio	Prese ude	entation/attit	Other	Total		
Subtotal		70		0	30	0		0	100		
Basic Profic	Basic Proficiency 0			0	0	0		0	0		
Specialized Proficiency		70		0	30	0		0	100		
Cross Area Proficiency		0		0	0	0		0	0		

,	Anan Co	llege	Year	2024		Course Title	Hydraulic Engineering
Course	Informa	tion					
Course Co	ode	1814E01			Course Category	Specialize	d / Compulsory
Class For	mat	Lecture			Credits	Academic	Credit: 2
Departme	ent	Course of	Civil Engineering]	Student Grade	4th	
Term		First Seme	ster		Classes per Weel	k 前期:2	
Textbook Teaching	and/or Materials	PEL水理学	実教出版				
Instructo	<u> </u>	Osada Ker	igo				
Course	Objectiv	es					
2. Able to 3. Able to	explain be explain the	asic equation ne hydrologica	of non-uniform al cycle and run	I flow and uniform flow and water su off analysis metho ontrol and water u	urface profile od		
Rubric	•						
			Ideal Level		Standard Level		Minimum Level
Course O	bjective 1		Able to thorouge equation of ope		Able to explain b	asis equation of ward uniform	f Able to slightly explain basis equation of open channel flow
Course O	bjective 2		and uniform flo Able to thoroug equation of nor and water surfa	hly explain basic n-uniform flow	Able to explain b	asic equation of and water	equation of non-uniform flow
Course O	bjective 3		Able to thoroughydrological cylanalysis metho	hly explain	Able to explain h cycle and runoff method	ydrological analysis	and water surface profile Able to slightly explain hydrological cycle and runoff analysis method
Course O	bjective 4		Able to thoroug planning and is control and wa	hly explain sues on flood	Able to explain p issues on flood of water utilization		Able to slightly explain planning and issues on flood control and water utilization
Assigne	d Depar	tment Obje	ectives				
	到達度目標						
Teachin	g Metho	od					
	9 1 100110		earn the principl	es of open channe	el flow river engir	neering and ha	sic coastal engineering though
Outline		this class.		es or open enam.		Teering, and ba	
Style		addition le	cture.	problems for betto The self-study tim	_	important term	s and calculation methods in
Notice		1,			ict computational	problem.	
Charact	eristics	of Class / F	Division in Lea	arning	•	•	
□ Active		51 G.G55 / E	☐ Aided by IC		☑ Applicable to	Remote Class	☐ Instructor Professionally Experienced
							·
Course	Plan						
		TI	neme		G	ioals	
		1st St	eady flow in ope	en channel	S ¹	teady flow.	nd the momentum equation of pecific energy and the Froude
		2nd St	eady flow in ope	en channel	fl A	ble to explain s ow. ble to explain c ble to explain h	ubcritical flow and supercritical ritical depth.
		3rd U	niform flow in o	oen channel	Α	ble to explain t	he mean velocity formula. he normal depth.
	1st Quarter	4th U	niform flow in op	oen channel	A		nd the calculation of uniform
1st Semeste	Quarter	5th N	on-uniform flow	in open channel	fl A	ow.	he basic equation of non-uniform
r		6th N	on-uniform flow	in open channel	CI A	hannel. ˙	on-uniform flow in uniform he classification of water surface
		7th N	on-uniform flow	in open channel	A		vater surface profile in non-
		8th M	idterm examinat	term examination			
		9th Fl	uvial Geomorph	ology		ble to explain to	he classification of rivers and
	2nd Quarter	10th H	ydrology		Able to explain the hydrological cycle a mechanism of rainfall. Able to explain the characteristic of rainfall. Able ton explain the measurement metainfall.		infall. he characteristic of rainfall in

		11th	Hydrol	ogy			Able to calculate the average depth of rainfall over watershed area. Able to explain runoff analysis methods.				
		12th	River p	blanning			and dam.	ain flood disaster	used river channel in urban area and		
		13th	River p	planning and mana	gement		utilization pla	anning. ain river manage	ces issue and water ment and		
		14th	River	structure			Able to explain Able to explain spur dikes.	Able to explain the roles of river bank. Able to explain the roles of revetment works and			
		15th	Coasta	al engineering			Able to explain the basic characteristics of a wave. Able to explain tsunamis and high tide disasters.				
		16th	Return	of final examination	on result						
Evaluation	on Met	hod and	Weigh	t (%)							
		Midterm/fi Exam		Quiz	Portfolio	Prese	entation/Attit	Other	Total		
Subtotal		70		0	30	0		0	100		
Basic Profi	ciency	10		0	10	0		0	20		
Specialized Proficiency		60	0		20	0		0	80		
Cross Area Proficiency		0	0 0 0		0		0	0			

Anan College		llege	Year 2024				ourse Title	Environmental Engineering
Course	Informa	tion		•				
Course Co		1814F02			Course Category	,	•	ed / Compulsory
Class For		Lecture			Credits			c Credit: 2
Departme	ent		Civil Engineerin	ng	Student Grade			
Term Textbook	and/or	First Sem PEL kank			Classes per Weel	K	削期:2	
Teaching		Distribute	documents as	appropriate.				
Instructor		Kagemas	a Shuka					
	Objectiv							
 Gain kr Gain kr Unders 	nowledge of the contract of th	of tap water of wastewate explain the r	supply systems er and industrial needs and metho	I waste treatment ods of environmen	methods. tal impact assessn	nent.		
Rubric								
			Ideal Level		Standard Level			Minimum Level
Achievem	ent 1		of water suppl	vater purification,	Explain the role a of water supply salso possible to e operation of water	syster explai	n. It is n the	Explain the role and operation of water supply system.
Achievem	ent 2		treating waste industrial wast wastewater ar treatment con	and the laws for ewater and te. Explain how and industrial waste itribute to the of a recycling-	Explain the purportechnologies, and treating wasteward industrial waste.	d the	laws of	Explain the purpose and technologies of treating wastewater and industrial waste.
Achievem	ent 3		Understand ar purpose, the	nd explain the evaluation displays of	Explain the purpolevaluation indical process of environment assessment	itors, onmei	and the	Explain the process of environmental impact assessment.
			'		1			1
Assigne	d Depar	tment Ob	lectives					
		tment Obj 県 A-3 学習・	Jectives 教育到達度目標 [D-1				
学習・教育		票 A-3 学習・		D-1				
学習・教育	· 到達度目標	RA-3 学習・ d The class biodiversi Understal	教育到達度目標 C focuses on wate ty in lecture sty and the technolog	er use, waste treat le. aies and institution	•			mpact assessment methods, and nd be able to explain the measures
学習・教育 Teachin Outline	· 到達度目標	RA-3 学習・ d The class biodiversi Understal for buildir	教育到達度目標 C focuses on wati ty in lecture sty nd the technolog ng a sustainable	er use, waste treal le. gies and institution society.	s of environmenta			•
学習·教育 Teachin	· 到達度目標	RA-3 学習・ d The class biodiversi Understal for buildir	教育到達度目標 C focuses on wati ty in lecture sty nd the technolog ng a sustainable	er use, waste treat le. aies and institution	s of environmenta			•
学習・教育 Teachin Outline Style Notice	到達度目標 g Metho	RA-3 学習・ d The class biodiversi Understal for buildir Lecture s	教育到達度目標 C focuses on wati ty in lecture sty nd the technolog ng a sustainable	er use, waste treat le. gies and institution society. bmission of report	s of environmenta			•
学習・教育 Teachin Outline Style Notice	野達度目標 g Metho	RA-3 学習・ d The class biodiversi Understal for buildir Lecture s	教育到達度目標 [focuses on wate ty in lecture sty nd the technolog ng a sustainable tyle. Request su	er use, waste treat le. gies and institution society. bmission of report earning	s of environmenta	al pro	tection ar	•
学習・教育 Teachin Outline Style Notice Charact	野選度目標 g Metho eristics (Learning	RA-3 学習・ d The class biodiversi Understal for buildir Lecture s	教育到達度目標 [focuses on water ty in lecture sty and the technologing a sustainable tyle. Request su	er use, waste treat le. gies and institution society. bmission of report earning	s of environmenta s as appropriate.	al pro	tection ar	nd be able to explain the measures
学習・教育 Teachin Outline Style Notice Charact	野選度目標 g Metho eristics (Learning	A-3 学習・d The class biodiversi Understal for buildin Lecture si	教育到達度目標 [focuses on water ty in lecture sty and the technologing a sustainable tyle. Request su	er use, waste treat le. gies and institution society. bmission of report earning	s of environmentas as appropriate.	al pro	tection ar	nd be able to explain the measures
学習・教育 Teachin Outline Style Notice Charact	野選度目標 g Metho eristics (Learning	A-3 学習・ d The class biodiversi Understal for buildir Lecture si	教育到達度目標 ☐ focuses on wate ty in lecture sty nd the technolog ng a sustainable tyle. Request su Division in Le ☐ Aided by Id	er use, waste treat le. gies and institution society. bmission of report earning	s of environmentas as appropriate. Applicable to	Remo	ote Class	nd be able to explain the measures
学習・教育 Teachin Outline Style Notice Charact	野選度目標 g Metho eristics (Learning	A-3 学習・ d The class biodiversi Understar for buildin Lecture si	focuses on water ty in lecture sty in lecture sustainable tyle. Request su	er use, waste treatle. le. jies and institution society. bmission of reportering CT Stem (1)	s of environmentas as appropriate. Applicable to	Remo	ote Class	☐ Instructor Professionally Experienced
学習・教育 Teachin Outline Style Notice Charact	野選度目標 g Metho eristics (Learning	RA-3 学習・ d The class biodiversi Understar for buildir Lecture s of Class /	focuses on watty in lecture stynd the technolog a sustainable tyle. Request su Division in Le Aided by Id Theme Guidance Water supply sys	er use, waste treat le. gies and institution society. bmission of report earning CT	s of environmenta s as appropriate. Applicable to G E s s	Remo	ote Class of the role of the base	Instructor Professionally Experienced and types of water supply ic plan of water supply system.
学習・教育 Teachin Outline Style Notice Charact	野選度目標 g Metho eristics (Learning	RA-3 学習・ d The class biodiversi Understar for buildir Lecture s of Class /	focuses on water ty in lecture sty in lecture sustainable tyle. Request su	er use, waste treat le. gies and institution society. bmission of report earning CT	s of environmenta s as appropriate. Applicable to G E s s	Remo	ote Class of the role of the base	☐ Instructor Professionally Experienced
学習・教育 Teachin Outline Style Notice Charact	野選度目標 g Metho eristics (Learning	RA-3 学習・ d The class biodiversi Understar for buildir Lecture sof Class /	focuses on watty in lecture stynd the technolog a sustainable tyle. Request su Division in Le Aided by Id Theme Guidance Water supply sys	er use, waste treat le. Jestem (1) Stem (2) Stem (3)	s of environmentas as appropriate. Applicable to G E S E E S E	Remo	ote Class the role the bas the bas water pentation, water p	Instructor Professionally Experienced and types of water supply c plan of water supply system. urification operations (flocculation, filtration, and disinfection). urification operations (flocculation, urification operations)
学習・教育 Teachin Outline Style Notice Charact	野選度目標 g Metho eristics (Learning	RA-3 学習・ d The class biodiversi Understar for buildir Lecture s of Class /	focuses on watty in lecture sty in lecture sty in lecture sty in the technolog as sustainable tyle. Request su Division in Le Aided by Id Theme Guidance Water supply sys Water supply sys	er use, waste treat le. le. gies and institution society. bmission of report earning CT stem (1) stem (2) stem (3) stem (4)	s of environmentals as as appropriate. Applicable to G E S E E S E E S E E E E E E E E E E	Remo	ote Class the role the bas water pentation, water pentation,	Instructor Professionally Experienced and types of water supply c plan of water supply system. urification operations (flocculation, filtration, and disinfection). urification operations (flocculation, filtration, and disinfection). and the component facilities of
学習・教育 Teachin Outline Style Notice Charact	到達度目標 g Metho eristics (Learning Plan	RA-3 学習・ d The class biodiversi Understare for buildir Lecture s of Class /	focuses on watty in lecture sty in lecture supple. Request su Division in Lecture Aided by Id Aided sty Id Ai	er use, waste treatle. Jes and institution society. bmission of reporter earning CT stem (1) stem (2) stem (3) stem (4) (1)	s of environmentals as as appropriate. Applicable to G E S S E E S E E S E E E E E E E E E	Remo	ote Class of the role of the bas of water pentation, of water pentation, of the role werage so	Instructor Professionally Experienced and types of water supply system. urification operations (flocculation, filtration, and disinfection). urification operations (flocculation, filtration, and disinfection). and the component facilities of ystem. ic plan of a sewage system. quality indicators and the
学習·教育 Teachin Outline Style Notice Charact □ Active Course	到達度目標 g Metho eristics (Learning Plan	A-3 学習・ d The class biodiversi Understare for buildir Lecture s of Class / 1st C 2nd V 3rd V 4th S 6th S	focuses on watty in lecture sty and the technology of a sustainable tyle. Request su Division in Le Division in Le Aided by Id Theme Guidance Water supply systy Water supply systy Water supply systy Water supply systy Sewage system Gewage system	er use, waste treat le. gies and institution society. bmission of report earning CT stem (1) stem (2) stem (3) stem (4) (1)	s of environmentals as as appropriate. Applicable to G E S E E E E G E G E G E G E G E G E	Remo Remo Remo Remo Replair Replai	ote Class the role the bas water pentation, water pentation, the role werage s the bas the bas	Instructor Professionally Experienced and types of water supply c plan of water supply system. urification operations (flocculation, filtration, and disinfection). urification operations (flocculation, filtration, and disinfection). and the component facilities of ystem. ic plan of a sewage system. quality indicators and the ed for a basic sewage system plan.
学習・教育 Teachin Outline Style Notice Charact	到達度目標 g Metho eristics (Learning Plan	A-3 学習・ d The class biodiversi Understare for buildir Lecture s of Class / 1st C 2nd V 3rd V 4th V 5th S 7th S	focuses on watty in lecture sty in lecture sty in lecture sty ind the technolog a sustainable tyle. Request su Division in Le Division in Le Aided by Id Theme Guidance Water supply sys Sewage system Gewage system Industrial waste	er use, waste treatle. Jestem (1) Jestem (2) Jestem (4) Jestem (4) Jestem (4) Jestem (1)	s of environmentals as as appropriate. Applicable to G E S E E E C C ir	Remo Remo Roals xylair xylair edime xylair edime xylair calcula dicat xylair	ote Class other the role ons. other the bas of water pentation, of the role werage s of the bas ate water ors need of the con	Instructor Professionally Experienced and types of water supply system. Urification operations (flocculation, filtration, and disinfection). Urification operations of the second of the second operations of the second operation op
学習・教育 Teachin Outline Style Notice Charact □ Active Course	到達度目標 g Metho eristics (Learning Plan	RA-3 学習・ d The class biodiversi Understare for buildir Lecture s of Class / 1st C 2nd V 3rd V 4th S 6th S 7th S 8th I	focuses on water ty in lecture sty and the technolog a sustainable tyle. Request su Division in Le Division in Le Aided by Id Theme Guidance Water supply systy Water supply systy Water supply systy Water supply systy Sewage system Gewage system Industrial waste Midterm examina	er use, waste treatle. gies and institution society. bmission of report earning CT stem (1) stem (2) stem (3) stem (4) (1) (2) (3) treatment (1) ation	s of environmentals as as appropriate. Applicable to G E S E E E G I I I I I I I I I I I I I I I I	Remo Remo Remo Remo Replair Replai	ote Class other the role ons. other the bas of water pentation, of the role werage s of the bas ate water ors need of the con	Instructor Professionally Experienced and types of water supply c plan of water supply system. urification operations (flocculation, filtration, and disinfection). urification operations (flocculation, filtration, and disinfection). and the component facilities of ystem. c plan of a sewage system. quality indicators and the ed for a basic sewage system plan. ventional activated sludge process. plems and measures of industrial
学習・教育 Teachin Outline Style Notice Charact □ Active Course	到達度目標 g Metho eristics (Learning Plan	RA-3 学習・ d The class biodiversi Understare for buildir Lecture s of Class / 1st C C C C C C C C C C C C C C C C C C C	focuses on watty in lecture sty in lecture sty in lecture sty ind the technolog a sustainable tyle. Request su Division in Le Division in Le Aided by Id Theme Guidance Water supply sys Sewage system Gewage system Industrial waste	er use, waste treatle. gies and institution society. bmission of report earning CT stem (1) stem (2) stem (3) stem (4) (1) (2) (3) treatment (1) ation	s of environmentas s as appropriate. Applicable to G E S S E E S E S E E S E S E E S E E S E E S E E E S E E E E S E E E E S E	Remonsional proional	ote Class In the role ins. In the bas In water pentation, In water pentation, In the role werage s In the bas ate water cors need In the con In the prol treatmer	Instructor Professionally Experienced and types of water supply system. urification operations (flocculation, filtration, and disinfection). urification operations (flocculation, filtration, and disinfection). and the component facilities of ystem. ic plan of a sewage system. quality indicators and the ed for a basic sewage system plan. ventional activated sludge process. plems and measures of industrial t.
学習・教育 Teachin Outline Style Notice Charact □ Active Course	到達度目標 g Metho eristics (Learning Plan	RA-3 学習・ d The class biodiversi Understar for buildir Lecture state of Class / 1st C C C C C C C C C C C C C C C C C C C	focuses on water ty in lecture sty and the technolog a sustainable tyle. Request su Division in Le Division in Le Aided by Id Theme Guidance Water supply systy Water supply systy Water supply systy Water supply systy Sewage system Gewage system Industrial waste Midterm examina	er use, waste treat le. gies and institution society. bmission of report earning CT stem (1) stem (2) stem (3) stem (4) (1) (2) (3) treatment (1) ation ation	s of environmentals as as appropriate. Applicable to G E S S E E S E S E S E E S E S E E S E E S E E E E S E	Remo Remo Roals Explain	ote Class In the role ins. In the bas In water pentation, In water pentation, In the role werage s In the bas ate water cors need In the con In the prol treatmer	Instructor Professionally Experienced and types of water supply system. Unification operations (flocculation, filtration, and disinfection). Unification operations and the component facilities of system. Unifications and the ed for a basic sewage system plantation operational activated sludge process. Opens and measures of industrial to the plantation of the professional distribution of the professional distribution of the professional distribution of the professional distribution of the profession of the p
学習・教育 Teachin Outline Style Notice Charact □ Active Course	到達度目標 g Metho eristics (Learning Plan	A-3 学習・ d The class biodiversi Understare for buildir Lecture s of Class / 1st C 2nd V 3rd V 4th S 6th S 7th S 8th N 9th N	focuses on water ty in lecture sty in lecture sty in lecture sty ind the technology as sustainable tyle. Request surply in Aided by Idea in A	er use, waste treat le. gies and institution society. bmission of report earning CT stem (1) stem (2) stem (3) stem (4) (1) (2) (3) treatment (1) ation ation	s of environmentals as as appropriate. Applicable to G E S S E E S E E S E E S E E E E S E	Remonstration Redirection Replair (Redirection Replair (Redirection Redirection Red	ote Class In the role ons. In the bas In water pentation, In water pentation, In the role werage s In the bas ate water ors need In the con In the prol treatmer	Instructor Professionally Experienced and types of water supply system. Unification operations (flocculation, filtration, and disinfection). Unification operations and the component facilities of system. Unifications and the ed for a basic sewage system plan. Unificational activated sludge process.
学習・教育 Teachin Outline Style Notice Charact □ Active Course	到達度目標 g Metho eristics (Learning Plan	A-3 学習・ d The class biodiversi Understar for buildir Lecture s of Class / 1st C C C C C C C C C C C C C C C C C C C	教育到達度目標 [focuses on watty in lecture sty and the technolog a sustainable tyle. Request su	er use, waste treat le. gies and institution society. bmission of report earning CT stem (1) stem (2) stem (3) stem (4) (1) (2) (3) treatment (1) ation ation	s of environmentals as as appropriate. Applicable to G E S S E E S E E S S E E E S S E E E S S E E E S S E E E E S S E E E E E S S E	Remonsial proi	ote Class on the role ons. on the bas on water pentation, on the role werage s on the bas ate water cors need on the prol treatmer on the prol treatmer on the pun	Instructor Professionally Experienced and types of water supply system. Unification operations (flocculation, filtration, and disinfection). Unification operations and the component facilities of system. Unification of a sewage system operational activated sludge process.

	14th	Enviro	nmental impact ass	sessment (3)		Explain the processes involved in environmental impact assessment.			
	15th	Enviro	nmental impact ass	sessment (4)		Explain the pimpact asses	Explain the processes involved in environmental impact assessment.		
	16th	Return	of examination do	cuments					
Evaluation Met	hod and	Weigh	t (%)						
	Midterm/F exam	inal	Quiz	Portfolio	Prese ude	entation/Attit	Other	Total	
Subtotal	60		0	40	0		0	100	
Basic Proficiency	40		0	30	0		0	70	
Specialized Proficiency	d 20 0 10 0		0		0	30			
Cross Area Proficiency	0 0 0		0		0	0			

,	Anan Co	llege	Year	2024		Course Title	City Planning		
Course	Informa	tion							
Course Co	ode	1814G01			Course Category	y Speciali	zed / Compulsory		
Class Forr	mat	Lecture			Credits	Academ	nic Credit: 2		
Departme	ent	Course o	f Civil Engineerir	ng	Student Grade	4th			
Term		Second S	Semester		Classes per Wee	eek 後期:2			
Textbook Teaching	Matérials		nding city plann	ing					
Instructor			ama Takuro						
1. Unders 2. Unders 3. Unders	stand Japa stand the r	overview of nese urban	planning and its ons and research	in Japan and the w framework. n methods of transp					
Rubric									
			Ideal Level		Standard Level		Unacceptable Level		
Achievement 1			outline of urba	nd explain the an planning in e world, and be appropriate	Understand and outline of urban Japan and the v	planning in	Understand the overview of urban planning in Japan and around the world.		
Achievem	ent 2		City Planning divisions, be a	ne outline of the Act and district able to explain, o solve appropriate	Understand and overview of the Act and district	City Planning	Understand the overview of the City Planning Act and area divisions.		
Achievem	ent 3		Understand a roles, function methods of tr	nd explain the ns and research ansportation, and swer appropriate	Understand and roles, functions methods of tran	and research	Understand the roles, functions and research methods of transportation.		
Achievem	ent 4		forecasting (forecasting pr	nd traffic demand our-step demand ocedure) and priate questions.	demand forecas	tand and explain traffic d understand traffic demand forecasting (four-step demand forecasting procedure).			
Assigne	d Depar	tment Ob	jectives						
Teachin	g Metho	d							
Outline		Human li Since urb their solu	ife can be expreso oan planning is in utions and think	ssed in four terms: mportant to promo about urban develo	"living", "working te good urban ac opment that is ea	g", "relaxing" a tivities, we wi asy to live in.	and "moving". traffic. Il learn about various problems and		
Style		Lecture r Since thi	method [30 hour s course is a lea	rs of class time + 6 rning credit course,	0 hours of self-st reports will be c	cudy time] conducted as p	re-learning and post-learning.		
Notice									
Charact	eristics (of Class /	Division in Le	earning	1				
□ Active	Learning		☑ Aided by I	СТ	☐ Applicable to	Remote Class	☐ Instructor Professionally Experienced		
Course	Plan								
			Theme		(Goals			
		1st	Urban planning i	in the world		Understand th Renaissance, b garden city.	e theory of ancient times, paroque, ideal industrial, and		
		2nd	Urban planning i	in the world	i	Understand ne	ighborhood theory, Greenbelt, n Plan, and New Town.		
		3rd	Japanese urban	planning and frame	ework	comprehensive	tional land, regions, and e development plans. mprehensive development plans ans.		
	3rd Quarter	4th	Land use plan		1		ea division, regional planning, and		
2nd Semeste r		5th	Urban facilities a projects, renewa	and urban area dev al plans	elopment (development r	ban facilities and urban projects. e development and renewal of new		
	6th 7th	6th	Urban disaster p	revention·Landsca	pe	Understand ur landscapes and	ban disaster prevention structures, d landscape elements.		
		7th	Sustainable urba	an structure	1	Understand su transportation	stainable city models, public and community development.		
		8th	Midterm examin	ation					
	4th 9th		Significance and	ignificance and Purpose of Traffic Engineeri			Understand the significance and purpose of trafengineering. Understand various survey methods and indicators.		
Quarter 10th Traffic d			Traffic demand f	orecasting (four-st	ep demand	Understand trip generation volume and trip attraction volume.			

		11th	Traffic demand fo forecasting proces	recasting (four-si	tep demand	Trip generation volume and trip attraction volume can be calculated.			
		12th	Traffic demand fo forecasting proces	recasting (four-sidure)	tep demand	Understand traffic distribution (Flater method-Gravity model).			
		13th	Traffic demand fo forecasting proces	recasting (four-sidure)	tep demand	Traffic distribution (Flater method Gravity model) can be calculated.			
		14th	Traffic demand fo forecasting proced		tep demand	Traffic distributio can be calculated		·Gravity model)	
		15th	Traffic domand forecasting (four-step domand			Understand trans Understand assig	sportation behavi ned traffic volun	or model. ne.	
		16th	Final exam return						
Evaluati	on M	ethod and \	Veight (%)						
		Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total	
Subtotal		60	0	0	0	40	0	100	
Basic Proficiency			0 0		0	30	0	40	
Specialize Proficiency			0	0	0	10 0		60	
Cross Area Proficiency	Area 0		0	0	0	0	0	0	

,	Anan Co	llege	Year 2024				ourse Title	Regional Planning		
Course	Informa	tion								
Course Co	ode	1814G02	2	·		Course Categor	У	Specializ	ed / Compulsory	
Class For		Lecture				Credits			c Credit: 2	
Departme	ent	Course o	of Civil	Engineering	9	Student Grade		4th		
Term		Second S	Semest	er		Classes per We	Veek 後期:2			
Textbook Teaching		Commun	nity dev	velopment _l	project					
Instructor	•	Moriyam	ia Taku	ro						
1.Underst	and the re	gnificance a	and pro	ocess of reg	jional planning an ving, and underst	d community de and the social b	velopn ackgro	nent. und and o	community planning measures that	
3.Underst	nmunity live and region and the co	nal issues u	sing pr tion of	obability st the region	atistics and statis and think about p	tical methods. problem extraction	on and	problem	solving.	
Rubric										
			Idea	al Level		Standard Level			Unacceptable Level	
Achievem	ent 1		Und and able	erstand popaging prob	pulation decline lems, and be and explain oblems.	Understand poland aging probable to answer questions.	oulatio lems, a	and be	Understand population decline	
Achievem	ent 2		com be a	cess of regionships and the contraction of the cont	e significance and onal planning and velopment, and ver and explain oblems.	Understand the progress of reg and community and be able to appropriate que	ional p devel answe	lanning opment, r	d Understand regional planning and community development.	
Achievem	ent 3		and be a	statistical p	bbability statistics processing, and ver application	Understand pro and statistical p be able to ansy questions.	process	sing, and	Understand probability statistics and statistical processing.	
Achievem	ent 4		anal eval	ysis, optim uation, and	rent situation ization, and I be able to tion problems.	Understand cur analysis, optim evaluation, and appropriate que	ization I can a	, and nswer	Understand current situation analysis, optimization, and evaluation.	
Assiane	d Depar	tment Ob	piectiv	es/es						
	g Metho									
Outline		what is r In addition	necessa on to le s that a	ary to live in earning abo are happen	n the region. out current proble ing around us.	ms and their sol	utions	in urban	ity development, and think about development, we will discuss e conditions of livable areas and	
Style		Since thing will contact the second s	is cours carry or techni	se is a learr ut classes u que metho	nina credit course	, reports will be training techniq .)	conduc ue met	cted as pr chod.(Dep	ramples and reports. e-learning and post-learning. ending on the number of students,	
Notice		societies 1.What k 2.What c	are int kind of can we	terconnecte area is a w do to make	amic academic fied. onderful area? the area better? sustainable regio		rse sta	keholders	s such as humans, organisms, and	
Charact	eristics (of Class /		_						
☑ Active		01 01033 7		Aided by IC		☐ Applicable t	o Rem	ote Class	☐ Instructor Professionally Experienced	
Course	Plan									
			Theme	2			Goals			
		1st	Local is	ssues			situati planni Explai	on of dec ng. n the rela	tionship between the current lining birthrate and regional tionship between the current state gional planning.	
2nd	3rd	2nd	Region	al planning	and community	development	comm Under	unity dev stand the	structure and examples of elopment. development and maintenance of s and urban areas.	
Semeste r	3rd Quarter	3rd	Social	background	d and regional pla	nning	popula	ation, and	hange population, related immigration.	
		4th	Sustair	nable regio	nal development		popula	ation, and	change population, related immigration.	
		5th	Sustair	nable regio	nal development		popula	ation, and	change population, related immigration.	
	6th Probability statistics and statistical process			processing	Understand the binomial distribution, Poiss distribution, normal distribution Gumbel distribution, and joint probability density for		rmal distribution Gumbel			

		7th	Probability statisti	cs and statistical	processing	Understand inter	val estimation.		
		8th	Midterm examinat	ion					
		9th	Probability statisti	cs and statistical	processing	Understand statistical tests (population mean, population mean difference).			
		10th	Probability statisti	cs and statistical	processing	Understand statistical tests (population variance, population variance difference, population proportion).			
		11th	Phenomenological analysis	analysis and mu	ltivariate	Understand corre Understand simp			
	4th	12th	Multivariate analy	sis and optimizati	ion methods	Understand mult Understand linea method, simplex	r programming (nalysis. (illustration	
	Quarter		Optimization meth	nod·evaluation		Understand linea programming). Understand cost-	, ,		
		14th	Preparation of pre	sentation materia	als	Students will be able to consider proposals aimed at building sustainable communities and summarize them as sentences.			
		15th	Preparation of pre	sentation materia	als	Students will be at building susta summarize them	inable communit	proposals aimed ies and	
		16th	Final exam return						
Evaluati	on Met	hod and	Weight (%)						
	E	xamination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total	
Subtotal	6	0	0	0 0		0	0	60	
Basic Proficience	60 Gy		0	0	0	0	0	60	
Specialize Proficience	ialized o		0	0 0		0	0	0	
Cross Are Proficience	Area o		0	0	0	0	0	0	

,	Anan Co	llege	Year	2024		Course Title	ConstructionWorkControl		
Course :	Informa	tion		1		i iiic			
Course Co		1814H01			Course Category	Specializ	ed / Compulsory		
Class Forr	mat	Lecture			Credits		c Credit: 2		
Departme	ent	Course of	Civil Engineering	9	Student Grade	4th			
Term		Second Se	emester		Classes per Weel	/eek 後期:2			
Textbook Teaching	Matérials		•	Kaneko, MORIKIT	A PUBLISHING Co	o., Ltd.)			
Instructor		Yoshimura	a Hiroshi						
1. Unders 2. Unders technique	tand the b		lge of constructi ete work, founda	on management ration work, and ur	nethods. nderground work,	which are som	ne of the basic construction		
Rubric									
			Ideal Level		Standard Level		Minimum Level		
Achievem	Achievement 1			ge of construction nethods can be riately, and can roperly.	Basic knowledge management me learned, and can	thods can be	Basic knowledge of construction management methods can be learned.		
Achievem	ent 2		Earthwork, con foundation wor underground w some of the ba techniques, car and can be expaccurately.	k, and ork, which are sic construction be understood,	Earthwork, concr foundation work, underground wo some of the basi techniques, can I	and rk, which are c construction	Earthwork, concrete work, foundation work, and underground work, which are some of the basic construction techniques, can be understood.		
Assigne	d Depar	tment Obj	ectives				•		
			教育到達度目標 D	-2					
Teachin	g Metho	od							
Outline Style Notice Charact	eristics (of constru In this cou- engineerir This coun- diagrams [30 class I By paying your unde	ction works. Irse, instructor volumes at construction se are conducted in the text in the nours, 60 hours	who have been in n company will us d using projectors e classroom only. of self-study time construction work facilitated.	charge of research their experience because it is diff	n and developi to give lectur icult to unders	hods necessary to control a series ment related to geotechnical es. tand the size of the pictures and ally seeing it with your own eyes,		
□ Active	Learning		☐ Aided by IC	Т	☑ Applicable to	Remote Class	☑ Instructor Professionally Experienced		
Course	Plan								
Course		Т	heme		G	ioals			
			onstruction work	<	O	utline of the c	onstruction business and the lustry can be explained.		
		2nd C	onstruction work	<		onstruction sy xplained.	stem and construction plan can be		
		3rd C	onstruction work	<	u M	Ethics of construction engineers can be understood. Major construction-related laws and regulations can be explained.			
	3rd Quarter	4th C	onstruction man	agement	e	xplained.	ol and quality control can be		
		5th C	onstruction man	agement	C e	ost control, sa nvironmental i	fety and health control, and nanegement can be explained.		
2nd		6th C	onstruction mac	hinery		outline of const xplained.	ruction machinery can be		
Semeste r		7th C	Construction machinery Midterm examination		P C	roductivity and onstruction ma	l work efficiency of major achinescan be explained.		
		8th M							
		9th Earth work		e E	xplained.	e survey and plan can be ling, and earth-moving equipment d.			
	4th	10th E	arth work			mbankment w an be explaine	ork and compaction management d.		
	14111		th Concrete work			Outline of concrete work can be explained.			
	Quarter	11th C	oncrete work						
		1.2th C	oncrete work oncrete work oundation work		F	low of concrete	e work can be explained. ruction method in shallow		

	14th	Under	ground work			Classification of tunnels can be unedstood. Outline of open cut method can be explained.			
	15th	Under	ground work			Outline of sh be explained	Outline of shield tunneling method and NATM can be explained.		
	16th	Return	of the final exam	ination					
Evaluation Me	thod and	Weigh	t (%)						
	Midterm/f exam.	final	Quiz	Portfolio	Prese	entation/attit	Other	Total	
Subtotal	70		0	30	0		0	100	
Basic Proficiency	0		0	0	0		0	0	
Specialized Proficiency	70		0	30	0		0	100	
Cross Area Proficiency	0		0	0	0		0	0	

,	Anan Co	llege	Year	Year 2024			ourse Title	Civil Engineering Experiment 1	
Course	Informa	tion				I			
Course Co	ode	1814T04			Course Categor	У	Specialize	ed / Compulsory	
Class For	mat	Experiment	t		Credits		Academi	Credit: 2	
Departme	ent	Course of 0	Civil Engineerin	g	Student Grade		4th		
Term		First Seme	ster		Classes per Wee	ek 前期:4			
Textbook Teaching		Doshitsu S	hiken - Kihon	& Tebiki - (The Ja	panese Geotechr	nical S	ociety, MA	ARUZEN Co., Ltd.)	
Instructor	r	Yoshimura	Hiroshi,Inoue	Takafumi					
1. Unders 2. Unders	stand the p	terminology ourpose of eac	related to soil of the soil of the soil experiments obtained from	experiments. ent and learn how om soil experimen	to organize the e	experi	mental re	sults.	
Rubric		10 400 00014		<u> </u>					
Rubiic			Ideal Level		Standard Level			Minimum Level	
Achievem	ent 1		Basic terminol	ogy related to soil an be understood, nology can be ined.	Basic terminologexperiments car				
Achievem	nent 2		Purpose of eac can be proper how to organiz experimental r	ch soil experiment ly explained, and ze the	Purpose of each can be explaine organize the expressults can be u	ed, an perim	d how to	Purpose of each soil experiment can be understood.	
Achievem	How to use constants obtained from sail experiments can be				obtained can be	How to use constants obtained from soil experiments can be understood.			
Assigne	d Depar	tment Obje	ectives						
学習・教育	到達度目標	票 D-2 学習・教	放育到達度目標 E	-2					
Teachin	g Metho	od							
Outline Style		mechanics, In this cou geotechnic Cooperatio Reading th	/geotechnical erse, one of the all engineering in groups of erelevant expe	engineering will be instructors who ha	understood. ave been in chare mpany will use the mportant. be textbook previ	ge of i	research a operience	nnections between soil and development related to to give experiments.	
Notice				and shoes, and br		and v	our calcul	lator	
	orieties		Division in Le	· · · · · · · · · · · · · · · · · · ·	ing the textbook	ana	roui calcul	ator.	
Charact	eristics	OI Class / L	IVISION IN LE	earning	I				
☐ Active	Learning		☐ Aided by IO	CT	☐ Applicable to	Rem	ote Class	☑ Instructor Professionally Experienced	
Course	Plan								
		Th	neme		(Goals			
		1st Gu	uidance oil particle dens	ity test				be calibrated. sity test can be measured.	
		2nd Sc	oil particle dens	ity test		meası	irement re		
		3rd Lic	quid limit test a	and plastic limit tes	!	gräine	d soil can	and plastic limit test of fine- be performed.	
	1st	4th Lic	quid limit test a	and plastic limit tes	st ,	ine lid from t	quia limit a he measu	and plastic limit can be calculated rement results.	
	Quarter	5th Pa	rticle size test	of soil				analysis can be performed.	
			rticle size test	of soil	i			be performed.	
1st Samesta		7th Pa	rticle size test	of soil				e calculated from the	
r	emeste 8			aximum density te	st of sand	Minim be per	urement re um and m formed, a	esults. naximum density tests of sand can and maximum and maximum ecaluculated.	
		9th Sc	oil compaction t	test			action test	t of soil by tamping can be	
	2nd	10th Sc	oil compaction t	test		Comp	action cur	ve and zero air voids curve can be the measurement results.	
	2nd Quarter	11th Co	onstant head pe	ermeability test		Consta	ant head p	permeability test can be coefficient of permeability can be	
	12th Unconfined commprssion test				calculated from the measurement results. Unconfined commprssion test can be conducted.				
	1	,		p. 122.2.1. 1001	I	2001		, the same of the contraction	

		13th	Uncon	fined commprs	sion test			Stress-strain curve can be drawn from the measurement results, and the unconfined compression strength can be calculated.			
		14th	Box sh	ear test				Box shear test (CD condition) test can be performed.			
		15th	Box sh	ear test				Shear streng from the exp	th of CD condition perimental results.	can be calculated	
		16th	Return	of the final ex	amination						
Evaluation	Meth	od and	Weigh	t (%)							
		Midterm/fi	nal	Quiz	Portfo	lio	Prese ude	entation/attit	Other	Total	
Subtotal	2	20		0	80		0		0	100	
Basic Proficien	ncy (0		0	0		0		0	0	
Specialized Proficiency	d y 20 0 80 0		0		0	100					
Cross Area Proficiency	rea o o o		0		0	0					

,	Anan Col	llege		Year	2024			Course Title	Civil Engineering Experiment 2	
Course	Informat	tion	1						, , , ,	
Course Co		1814T05				Course Categor	γ	Specializ	ed / Compulsory	
Class For		Experime				Credits	,		c Credit: 2	
Departme	ent	Course c	of Civ	/il Engineering		Student Grade		4th		
Term		Second 9	Seme	ester		Classes per Week 後期:4				
Textbook Teaching		Testing F Publisher			struction Materials	s (JSMS) , Eng	ginee	ring of Cor	crete Structure (Morikita	
Instructor	٢	Kadono ⁻	Taku	ıma						
Course	Objectiv	es								
2. Able to 3. Able to 4. Able to report, or 5. Able to	o organize to enforce the enforce the the structorize	the results ne mix desi ne explaina tual experir the comm	of st gn a tion nent unica	andard tests a nd its revision of outline, pre using RC bea	m.	ation, and creat m. n, comparison of	expe	erinment a	nd calculation, and creating a ce of safty management, and	
Rubric	•									
			Id	leal Level		Standard Level			Minimum Level	
Achievem	ent 1		of re	f standard test bar and conc	and the methods s of aggregate, rete, and enforce cient accuracy.	of standard tes	ts of	aggregate		
Achievem	ent 2		Al or cc te	ble to underst rganize the re- onsideration o	and and sults and their f the standard re reports with	Able to underst organize the re consideration o tests, and creat	sults f the	and their standard	Able to organize the results and their consideration of the standard tests, and create reports.	
Achievem	ent 3		th ar	ne mix design	and and enforce and its revision, ir outlines with acy.	Able to underst the mix design and explain the	and	its revision		
Achievem	ent 4		of ca ca re	f outline, pred	experiment and creating a tructural na RC beam,	Able to enforce the explanation of outline, predictive calculation, comparison of experiment and calculation, and creating a report, on the structural experiment using RC beam, with accuracy.			1, of outline prodictive calculation	
Achievem	ent 5		th im th m pr	ne communica nportant as th ne importance nanagement, a ractice with th	e engineer and of safety and enforce the e	Able to understand and explais the communication skill which important as the engineer and the importance of safety management, and enforce the practice with the cooperativeness.				
Assigne	d Depart	tment Ob	ject	tives						
学習・教育	到達度目標	₹ D-2 学習・	・教育	到達度目標 E-	2					
Teachin	g Metho	d								
Outline		reinforce plan, enf knowled member	ed co force ge ai who	ncrete structu ment, analysi nd skill on ma	re which is one o s, consideration, terial, structure a e of research and	f mainly structur group activity ar nd construction	re on nd pro throu	the civil e oblem-solv	ructural member, focusing on ngineering field. It improves the ing abilities, to aquire the periments. In this course, faculty tures at company use its	
Style		【61 hou	ırs o	f calss time +	final exam + self	-study time 30h	ours)			
Notice		accoring easy to r experime bring tex not relat	to the move ents, atboom to the tents, and to the tents of tents of the tents of the tents of the tents of tents of tents of tents of tents of tents	he pracitical e e in and can g heavy object oks, pens and o this course,	ducation by group et a little dirty, ar s may be handled calculator, and ca	o work. For safel nd athletic shoes I and dust, oil, w areful to manage atory contains ed	ty rea s shou vater e valu quipn	ason, stude uld be word may adhed uables. Stud nents, sam	of aquiring the knowledge and skill ents should wear clothes that are n. This is because during re to clothes. Students are sure to dents don't touch anything that is ples and materials that are being	
Charact	eristics o	of Class /	Div	ision in Lea	arning					
□ Active	Learning			Aided by IC	Г	☐ Applicable to	o Rer	mote Class	☐ Instructor Professionally Experienced	
Course	Plan									
55415C			Ther	me			Goal	 S		
2nd		1 ct	Guid	lance	the aggregate		Able in th	to explain is course.	the object, significance and notes Able to enforce the method of test is of aggregates, and explain it.	
Semeste r 2nd Standard tests of the aggreg			the aggregate	Able to enforce the method of test for density water absorption of fine aggregates, for surface			on of fine aggregates, for surface ne aggregate and for moisuture egate and surface moisture in			
						ayyr	eyate by 0	i yiriy, ariu expialii it.		

		3rd	Standard tests of	the aggregate		water absorption	on of coarse ag nt of aggregate	f test for density and gregates and for e and surface ing, and explain it.		
		4th	Standard tests of	the rebar		Able to enforce at room tempe	the tensile tes	sting-method of test , and explain it.		
		5th	Mix design of con	crete		Able to enforce explain it.	the mix desig	n of concrete, and		
		6th	Mix design of con	crete		Able to enforce explain it.	the mix desig	n of concrete, and		
		7th	Mixing concrete a concrete	nd standard tests	s of fresh	test at the time Chloride conter addition, able t	e of fresh concr nt). And able to o make test sp	orce the standard rete(Slump, Air, o explain them. In pecimens that are post-curing concrete.		
		8th	Mixing concrete a concrete	nd standard tests	s of fresh	test at the time	e of fresh concr nt). And able to	orce the standard rete(Slump, Air, o explain them. In x design.		
		9th	Midterm exam							
		10th	Return of answer Standard tests of		concrete	concrete(Comp	Able to enforce the standard tests of post-curing concrete(Compressive, Tensile, Non-destructive inspection), and explain them.			
		11th	Standard tests of	the post-curing of	concrete	Able to enforce consideration of post-curing cor	of results on the	l, analysis and e standard tests of		
	4.1	12th	Experiment of RC Production)	beam(Explanati	on of outline,			loading test of RC peam, and explain		
	4th Quarter	13th	Experiment of RC	beam (Loading)		Able to enforce explain it.	the loading te	st of RC beam, and		
		14th	Experiment on RO experiment and c		on of	behavior on the enforce the cor	Able to calculate predictive values of mechanizm behavior on the loading test of RC beam, and enforce the comparison and consideration of calculation and experiment. Able to calculate predictive values of mechanizm behavior on the loading test of RC beam, and enforce the comparison and consideration of calculation and experiment.			
		15th	Experiment on RC experiment and c		on of	enforce the cor				
		16th	Final exam							
Evaluati	on Met	hod and	Weight (%)							
		xamination		Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal	2	0	0	0	20	50	0	90		
Basic Proficiency	y 10	0	0	0	15	25	0	50		
Specialize Proficiency		0	0	0	5	25	0	40		
Cross Area Proficiency		0 0 0				0	0	0		

,	Anan Co	llege	Year	2024		Course Title	CivilEngineeringPractice2	
Course	Informa	tion						
Course Co	ode	1894601			Course Category	Specializ	red / Elective	
Class Fori	mat	Seminar			Credits	School (
Departme	ent	Course o	f Civil Engineerin	ıq	Student Grade	4th		
Term		Second S			Classes per Wee	k 後期:4		
Textbook	and/or Materials		distribute works	sheets	,	12.2.12		
Instructo	r	Yoshimuı	ra Hiroshi,Moriya	ma Takuro,Osada	Kengo,Kadono Ta	ıkuma,Kagem	asa Shuka	
Course	Objectiv	'es						
1. A learr Engineeri 2. A learr Engineeri	ner can und ng, Soil Mo ner can sol	derstand im echanics, Su ve computa	irveying, and Env tional problems r	vironmental Engine	eering. Il engineering sub		Mechanics, Materials, Hydraulic Il Mechanics, Materials, Hydraulic	
Rubric			T-1111		Chandand Laval		Nationium I month	
			Ideal Level		Standard Level		Minimum Level	
Course O	bjective 1		subject: Struct Materials, Hyd Engineering, S	tant words h civil engineering tural Mechanics, Iraulic	A learner can un important words civil engineering Structural Mecha Hydraulic Engine Mechanics, Surve Environmental E	regarding ead subject: Inics, Materials Bering, Soil Beying, and	regarding each civil engineering	
Course O	bjective 2		subject: Struct Materials, Hyd Engineering, S	problems to be problems to civil engineering tural Mechanics, lraulic	A learner can sol computational pregarding each c subject: Structur Materials, Hydra Engineering, Soil Surveying, and E Engineering.	oblems ivil engineerin al Mechanics, ulic Mechanics,	A learner can slightly solve computational problems regarding each civil engineering subject: Structural Mechanics, Materials, Hydraulic Engineering, Soil Mechanics, Surveying, and Environmental Engineering.	
<u>As</u> signe	d Depar	tment Ob	jectives					
学習・教育	到達度目標	票 A-3 学習・	教育到達度目標 B	3-2 学習・教育到達度	 度目標 B-3 学習・教	故育到達度目標	D-1	
Teachin	g Metho	nd						
	ig i icciio		conducts many	drille regarding ea	ch civil engineerin	a subject and	checks again important words and	
Outline		calculation	n methods in thi	is class.	cir civii erigirieerii	ig subject and	checks again important words and	
Style		of class.	will distribute as earner needs to s Grades will be evening time: 60 ho	valuated on 50% fo	ems) regarding wo ms within the time or assignments an	ord and calcula e specified. St nd 50% for qu	ation at the beginning of each udents will take a quiz at the end zzes.	
Notice		1		each time to condu	ıct computational	problem.		
	orictics		Division in Le		acc compacacionar	problem		
Criaract	eristics (UI Class /		arriirig	I		Tartonial Doctorial	
☐ Active	Learning		☐ Aided by IC	<u> </u>	☐ Applicable to	Remote Class	☑ Instructor Professionally Experienced	
Course	Plan							
		-	Theme		G	Goals		
			Orientation Practice problems	s of Structural Mec	chanics S	tructural Mecl	olve computational problems in	
		2nd I	Practice problems	s of Structural Mec	chanics A	learner can utructural Mecl	nderstand important words in nanics. Olve computational problems in	
		3rd I	Practice problems	s of Structural Mec	chanics S	tructural Mecl	olve computational problems in	
2nd Semeste r 3rd Quarter	3rd Quarter	4th I	Practice problems	s of Surveying	S	urveying.	nderstand important words in olve computational problems in	
	5th I	Practice problems	s of Surveying	S	urveying.	nderstand important words in olve computational problems in		
		6th I	Practice problems	s of Hydraulics	 	lydraulics.	nderstand important words in olve computational problems in	
					Δ	A learner can understand important words in Hydraulics. A learner can solve computational problems Hydraulics.		

		8th	Practic	e problems of Hyd	raulic Engineering		Hvdraulic En	i solve computatio		
		9th	Practio	e problems of Soil	Mechanics		A learner can understand important words in Soil Mechanics. A learner can solve computational problems in Soil Mechanics.			
		10th	Practic	e problems of Soil	Mechanics		A learner can understand important words in Soil Mechanics. A learner can solve computational problems in Soil Mechanics.			
		11th	Practic	e problems of Geo	technical Engineeri	ng	A learner can understand important words in Geotechnical Engineering. A learner can solve computational problems in Geotechnical Engineering.			
	4th Quarter	12th	Practic	e problems of Env	ironmental Enginee	A learner can understand important words in Environmental Engineering. A learner can solve computational problems in Environmental Engineering.				
		13th	Practic	Practice problems of Environmental Engineering A learner can understand important words in Environmental Engineering. A learner can solve computational problems in Environmental Engineering.						
		14th	Practio	e problems of Mat	erials	Materials.	can understand important words in			
		15th	Practio	e problems of Mat	erials		A learner can understand important words in Materials. A learner can solve computational problems in Materials.			
		16th								
Evaluati		nod and		t (%)		_				
		Midterm/F Exam	inal	Quiz	Portfolio	Prese ude	entation/Attit	Other	Total	
Subtotal		0		50	50	0		0	100	
Basic Proficiency 0				10	10	0		0	20	
Specialized Proficiency 0				40	40	0		0	80	
Cross Area Proficiency 0 0 0					0	0		0	0	

Anan College			Year	2024			ourse Title	Civil Engineering Seminar	
Course	Informat	ion	•						
Course Co		189460	2			Course Categor	ry	Specialize	ed / Elective
Class Forr	mat	Seminar	-			Credits	,	School Cr	edit: 1
Departme	ent	Course	of Civil E	ngineerin	g	Student Grade		4th	
Term		Second	Semeste	er		Classes per We	ek	後期:2	
Textbook Teaching	and/or Materials								
Instructor	ſ	Yoshimu Shuka	ıra Hiros	shi,Moriya	ma Takuro,Osada	Kengo,Tada Yut	aka,Ind	oue Takafı	umi,Kadono Takuma,Kagemasa
Course	Objective	es							
2. Able to	summariz	e the cont	ent of yo	our area o	re and researching of expertise in repo and to answer qu	orts and posters.	1	ed fields.	
Rubric									
			Ideal	Level		Standard Level			Unacceptable Level
Achievem	ent 1		inforr litera	mation by ture and i rials in the	sufficiently reading researching eir specialized	Able to gather information by reading literature and researching materials in their specialized field.			Able to gather by reading literature and researching materials in specialized fields, but not sufficient.
Achievem	ent 2		conte	ent of you rtise in re _l	ly summarize the r area of ports and	Able to summarize the content of their area of expertise in reports and postors			Able to summarize the content of your area of expertise in a report or poster, but it is not sufficient.
Achievem	ent 3		the s answ	ummarize	presentation on ed contents and to ons about it	Able to give a presentation on the summarized content and to			Able to give a presentation on what you have summarized and to answer questions about it, but not sufficient.
Assigne	d Depart	ment Ol	ojective	es					
学習・教育	到達度目標	₹ B-1 学習	・教育到達	達度目標 C	-2 学習・教育到達原	度目標 D-2			
Teachin	g Metho	d							
Outline		Students material analysis	ls related	quire know I to the co	wledge in their spe onstruction field, a	ecialized field by nd will learn how	reading w to co	g academi nduct rese	c literature and researching earch through experiments and
Style		a report	on it. Fr at differs	rom the fi	fth time, they will	be assigned to e	each fao	culty mem	. At a later date, write and submit ber. The method of proceeding ctions of the assigned faculty
Notice		literatur collect ir research inform v	e and ot nformation, and ho ou abou	her source on and inv ow to sum It the met	es in specialized fi vestigate materials Imarize and prese	elds that are rar s, how to condu nt results under tation at a later	ely cov ct expe the gui date. A	ered in de riments ar idance of ssignmen	ed to acquire knowledge from tail in class, and to learn how to nd analysis, how to conduct each faculty member. We will t to each faculty member will be
Charact	eristics o	of Class /	Divisi	on in Le	arning				
☐ Active		•		ided by IC		☐ Applicable t	o Remo	ote Class	☐ Instructor Professionally Experienced
Course	Plan								
			Theme				Goals		
		1st	Researc	ch introdu	ction of each facul	ty member		understa er's resea	nd the outline of each faculty rch.
		2nd	Researc	ch introdu	ction of each facul	ty member		understa er's resea	nd the outline of each faculty rch.
3rd		Researc	ch introdu	ction of each facul	ty member		understa er's resea	nd the outline of each faculty rch.	
2nd 3rd Semeste Quarter		4th	Literatu experim	re reading nents, ana	g, document resea llysis, etc.	irch,	and re faculty conduc	searching member' cting expe	nformation by reading literature materials related to the assigned is field of expertise. In addition, by riments and analyses, students proceed with research.
r Quarter -		5th		re reading nents, and	g, document resea llysis, etc.	ırch,	and re faculty conduc	searching member' cting expe	nformation by reading literature materials related to the assigned is field of expertise. In addition, by riments and analyses, students proceed with research.
		6th		re reading nents, and	g, document resea llysis, etc.	irch,	Able to gather information by reading literature and researching materials related to the assigned faculty member's field of expertise. In addition, by conducting experiments and analyses, students can learn how to proceed with research.		

	7th 8th 9th	Lirb Li	terature reading, cperiments, analy	document researsis, etc.	arch,	and researching faculty member' conducting expecan learn how to Able to gather in and researching faculty member' conducting expecan learn how to Able to gather in and researching faculty member'	materials related	to the assigned e. In addition, by ses, students search. ding literature to the assigned e. In addition, by ses, students search. ding literature to the assigned et o the assigned et o the assigned	
	9th	ex Li ex	terature reading, analy	document resea	,	and researching faculty member conducting expectan learn how to Able to gather and researching faculty member	materials related s field of expertise riments and analy proceed with res offormation by read materials related	to the assigned e. In addition, by yses, students search. ding literature to the assigned	
		th Li	kperiments, analy		arch,	and researching faculty member	materials related	to the assigned	
	10t		terature reading.			Able to gather information by reading literature and researching materials related to the assigned faculty member's field of expertise. In addition, by conducting experiments and analyses, students can learn how to proceed with research.			
1			periments, analy	document resea sis, etc.	arch,	Able to gather information by reading literature and researching materials related to the assigned faculty member's field of expertise. In addition, by conducting experiments and analyses, students can learn how to proceed with research.			
	11t		terature reading, operiments, analy	materials related s field of expertise	mation by reading literature aterials related to the assigned eld of expertise. In addition, by ments and analyses, students				
4th Quart	ter 12t		terature reading, operiments, analy	can learn how to proceed with research.					
			terature reading, operiments, analy		arch,	Able to gather information by reading litera and researching materials related to the ass faculty member's field of expertise. In addit conducting experiments and analyses, stud can learn how to proceed with research.			
	14t		terature reading, operiments, analy		arch,	Able to gather information by reading			
	15t	th O	rganizing results				ize the content of orts and posters.	their area of	
	16t	th pr	resentation			Able to give a pi	resentation on the wer questions abo		
Evaluation M	lethod	and We	eight (%)				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	Examination		Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total	
Subtotal	0		30	0	20	50	0	100	
Basic Proficiency	0		10	0	10	30	0	50	
Specialized Proficiency	0		20	0	10	20	0	50	
Cross Area Proficiency	0		0	0	0	0	0	0	

A	Anan Co	llege	Y	'ear	2024			ourse Title	Architectural Planning 2
Course	Informa	tion	l .						
Course Co		1894D0	1			Course Categor	у	Specialize	d / Elective
Class Forr	mat	講義・演	習			Credits		Academic	Credit: 2
Departme	ent	Course of	of Civil Eng	gineerir	ng	Student Grade		4th	
Term		Second S	Semester			Classes per Wee	ek	後期:2	
Textbook Teaching		Compact Illustrate	t Edition c ed Easy Ai	of Archit rchitect	tectural History [Ja ural Planning, Gakı	pan and the Wes ugei Shuppansha	st], Sho a Co.	kokusha,	Inc.
Instructor		Tada Yu	taka						
1. To be a 2. To und 3. To und 4. To be a characteri 5. Unders	erstand tr erstand and able to nar istics.	plain the planditional Ja nd describe me represe	panese ar Japanese ntative bu	chitect housin ildings	f various buildings ure and explain the ig of each period. 4 of each period in the nodern architecture	e names of its co l. ne West, and to	mpone underst	tand and e	explain their background and entative works.
Rubric									
			Ideal L	evel		Standard Level			Unacceptable Level
Achievement 1			plannir building the city pertine	ng featu gs to be and se ent prob	in detail the ures of various e constructed in olve their olems. Solve the roblems.	Describe the planning features of the various buildings			The planning features of the various buildings constructed in the city cannot be fully explained.
Achievem	ent 2		Japane	se arch	oout traditional itecture using representation.	Understand trad architecture and explain compon	d be ab	le to	I have a poor understanding of traditional Japanese architecture and can only partially explain it.
Achievem	To be able to systematically understand and explain the housing of each period in Japan. Understand and explain the housing of each period in Japan.					d explai n period	n the I in Japan.	I have a poor understanding of Japanese housing of each period and can only partially explain. I am only partially able to explain.	
Achievem	Achievement 4			eriod in tand ar ound a stemation the batically the batics.	e architecture of the West, and to nd explain its nd characteristics c manner. understand and ckground and s of the	To be able to na representative a names of each West, and to ur explain their bacharacteristics.	archited period i ndersta ickgroui	in the nd and nd and	The background and characteristics of each period in the West are poorly understood and only partially explained.
Achievem	ent 5		in the '	West ar	ne background and dern architecture nd be able to al representative	in the West and be able to			The background and process of modern architecture in the West is poorly understood and only partially explained.
Assiane	d Denar	tment Ob	-	 }		•			•
					 3-1 学習・教育到達原				
	g Metho		ハロエルビ	<u>~ — / Л </u>					
Outline	g Metric	Students various t	s will expa types of b nd its cha	uildings	s. Students will also	ned in Architectu learn about typ	ural Plai pical Jap	nning 1 to panese and	understand the characteristics of d Western architecture of each
Style		This cou	rse is a cr	edit co	urse, so a report is	required as pre-	and po	ost-learnir	ng.
Notice		30 hours of class time + 60 hours of self-study This course is a designated subject for the architectural examinations, and students who complete this cou will have an advantage in the number of years of work experience and other qualifications to take the examinations. Through repetition and repeated "study from the beginning to the end" from the second year to the fifth you will realize that you will have technical, academic, and artistic skills in your hands year by year. Syllabus-designated reference book: Architectural Planning at a Glance							qualifications to take the the second year to the fifth year.
Charact	eristics	of Class /							
☑ Active		,		ed by I		☐ Applicable to	o Remo	te Class	☑ Instructor Professionally Experienced
Course	Plan								
			Theme				Goals		
Describe the planning features of scho nurseries and kindergartens, libraries a museums					nning features of schools, ndergartens, libraries and				
2nd Semeste r	3rd Quarter	2nd	Social edu	ucation	facilities plannnig		Describ	nning features of schools, ndergartens, libraries and	
3rd Social education facilities plannnig					Describ	e the plar es and kir	nning features of schools, ndergartens, libraries and		

		4th	Health and social	care facilities pla	nning	describe the pla elderly care faci	nning features o	of healthcare and		
		5th	Health and social	care facilities pla	nning	describe the pla elderly care faci	describe the planning features of healthcare and elderly care facilities			
		6th	Commercial prem	ises planning		Explain the plan buildings and sh	Explain the planning features of theatres, office buildings and shops.			
		7th	Commercial prem	ises planning		Explain the plan buildings and sh	ning features of	theatres, office		
		8th	midterm examina	tion						
		9th	Japanese architec	tural history		Explain Stone A	Explain Stone Age housing and shrine architecture			
		10th	Japanese architec	tural history		Explain Buddhist architecture and ancient dwellings				
		11th	Japanese architec	tural history		Explain castle ar medieval housin	Explain castle and tea house architecture and medieval housing			
	4th	12th	Western architect	ural history		Explain ancient	Greek and Rom	an architecture		
	Quarter	13th	Western architect	ural history		Explain Byzantir architecture	ne, Romanesque	e and Gothic		
		14th	western architectural history architect			Explain Renaissa architecture	Explain Renaissance, Baroque and Rococo architecture			
		15th				Explain the pre-	xplain the pre-birth of modern architecture			
		16th	Return of final exa	turn of final examinations						
Evaluati	ion Me	thod and '	Weight (%)							
	E	Examination	Quiz	Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal	7	70	20	0	0	10	0	100		
Basic Proficienc	y c)	0	0	0	0	0	0		
Specialize Proficienc			20	0	0	10	0	100		
Cross Are Proficienc	Area o		0	0	0	0	0	0		

,	Anan Co	llege	Yea	ar	2024			Course Title	Internship		
Course	Informa	tion			1						
Course Co	ode	1894R11				Course Categor	У	Specializ	ed / Elective		
Class Forr	mat	Lecture				Credits		School C	redit: 1		
Departme	ent	Course of	f Civil Engin	eerir	ng	Student Grade		4th			
Term		Year-rour	nd			Classes per We	ek	前期:2 後	期:2		
Textbook Teaching											
Instructor	r	Kagemas	a Shuka								
Course	Objectiv	'es									
2. Able to	understa	nd contents	of the prac	tice a	ness and awarene and create its repoi and perfomed its p	rt.					
Rubric						1					
			Ideal Lev			Standard Level			Minimum Level		
Achievem	ent 1		the prepa	aredn ss as	stand and explain less and the engineer, and	Able to understand and explain the preparedness and hard preparedness			Able to explain the preparedness and awareness as the engineer.		
Achievem	ent 2		Able to u the pract accurate	ice, a	stand contents of and create its rt.	Able to underst the practice, ar report.			Able to create a report on contents of the practice.		
Achievem	ent 3			ice, a	stand contents of and performe its ntation.	Able to underst the practice, ar prsentation.					
Assigne	d Depar	tment Ob	jectives								
学習・教育	到達度目標	票 A-1 学習・	教育到達度目	∃標 <i>F</i>	4-2 学習・教育到達原	度目標 A-3 学習・	教育至	達度目標	3-1		
Teachin	g Metho	od									
Outline		practice of	on a compa	ny or	paradness and awa university. In add n the practice.	areness as the er dition, students o	nginee grow a	er to gain vas the eng	various experiences through the ineer to broaden their perspective		
Style			rehensive e			10% of a report	of the	practice,	80% of a manuscript and 10% of		
Notice		required	nd maintail submission	n dig s(e.ç	nity and decorum a g., research report	as the student of	I III 1	Anan colle	s) prior to the practice. Students ractice period. In the practical the instructions of the person in ege. Students should submit the manuscript, presentation file).		
Charact	eristics	of Class /	Division i	in Le	earning						
□ Active	Learning		□ Aided	by I	СТ	☐ Applicable to	e to Remote Class Instructor Professionally Experienced				
Course	Plan										
Course	riaii	T -	Гһете				Goals				
			Guidance				Able t	to study th	e manner on the practice, d notes, prior to the practice of		
		2nd (Guidance				Able t	to study th	niversities. The manner on the practice, It is notes, prior to the practice of The niversities.		
		3rd (Guidance				Able t	to study th	the manner on the practice, d notes, prior to the practice of niversities.		
	1st	4th	Guidance				subm	issions an	le manner on the practice, d notes, prior to the practice of niversities.		
1st	Quarter	5th F	Practice on	comp	oanies or universiti		Able to enforce the practice of companies or universities for at least approximately five day during the summer break.				
r	Semeste	6th F	Practice on	comp	oanies or universiti	es	unive	rsities for	the practice of companies or at least approximately five days mer break.		
		7th F	Practice on	comp	oanies or universiti	es	unive durin	rsities for g the sum	the practice of companies or at least approximately five days mer break.		
		8th F	Practice on	comp	oanies or universiti		unive	rsities for	the practice of companies or at least approximately five days mer break.		
	2nd	9th F	Practice on	comp	oanies or universiti	es	unive	rsities for	the practice of companies or at least approximately five days mer break.		
	Quarter	10th F	Practice on	comp	oanies or universiti	es	unive	rsities for	the practice of companies or at least approximately five days mer break.		

			_						
		11th	Practice on comp	anies or universit	iies		he practice of co t least approxima ner break.		
		12th	Practice on comp	anies or universit	ies	Able to enforce t universities for a during the summ	he practice of co t least approxima ner break.	mpanies or ately five days	
		13th	Practice on comp	anies or universit	iies	Able to enforce t universities for a during the summ	he practice of co t least approxima ner break.	mpanies or ately five days	
		14th	Practice on comp	anies or universit	ies	Able to enforce t universities for a during the summ	he practice of co t least approxima ner break.	mpanies or ately five days	
		15th	Practice on comp	anies or universit	iies		he practice of co t least approxima ner break.		
		16th	Practice on comp	Practice on companies or universities			he practice of co t least approxima ner break.	mpanies or ately five days	
		1st	Practice on comp	anies or universit	iies	Able to enforce t universities for a during the summ	he practice of co t least approxima ner break.	mpanies or ately five days	
		2nd	Practice on comp	anies or universit	ies	universities for a	Able to enforce the practice of companies or universities for at least approximately five darduring the summer break.		
		3rd	Practice on comp	anies or universit	ies		he practice of co t least approxima ner break.		
	3rd	4th	Practice on comp	anies or universit	ies	universities for a	Able to enforce the practice of companies or universities for at least approximately five days during the summer break.		
	Quarter	5th	Practice on comp	anies or universit	ies	Able to enforce t universities for a during the summ	he practice of co t least approxima ner break.	mpanies or ately five days	
		6th	Practice on comp	anies or universit	ies		he practice of co t least approxima ner break.		
2nd		7th	Practice on comp	anies or universit	ies		he practice of co t least approxima ner break.		
Semeste r		8th	Practice on comp	anies or universit	Able to enforce t universities for a during the summ	he practice of co t least approxima ner break.	mpanies or ately five days		
		9th	Create a report				report of the pra- sentation materia		
		10th	Create a report			Able to create a manuscript, pres	Able to create a report of the practice, a manuscript, presentation material.		
		11th	Create a report			Able to create a report of the practice, a manuscript, presentation material.			
		12th	Create a report			Able to create a report of the practice, a manuscript, presentation material.			
	4th Quarter	13th	Briefing of the pro	actice		Able to enforce a	presentation of the practical trai	the practice to	
		14th	Briefing of the pro	actice			presentation of the practical trai	the practice to ning site, faculty	
		15th	Study on compan	ies			career participat	ing the seminar	
		16th	Study on compan	ies		To advance own	career participat y leveraging own	ing the seminar	
Evaluati	ion Met	hod and	Weight (%)			Ton Companies, D	y ieveraging own	елрепенсе.	
	Examination			Mutual Evaluations between students	Behavior	Portfolio	Other	Total	
Subtotal	ıbtotal 0		10	0	0	10	80	100	
Basic Proficienc	y o		0	0	0	0	0	0	
Specialize Proficienc	ed o		0	0	0	0	0	0	
Cross Are Proficienc	a o		10	0	0	10	80	100	
Proficiency 5									

A	Anan Col	lege		Year	2024				Research for Graduation Thesis	
Course :	Informat	ion					•			
Course Co		1815000))			Course Categor	ry	Specialized	d / Compulsory	
Class Forr	mat	Seminar	-			Credits		School Cre		
Departme	ent	Course	of Civ	vil Engineering		Student Grade		5th		
Term		Year-rou	und			Classes per We	ek	10		
Textbook Teaching							•			
Instructor	-	Yoshimu Shuka	ıra H	Iiroshi,Moriyan	na Takuro,Osada	Kengo,Tada Yut	aka,Inc	oue Takafu	mi,Kadono Takuma,Kagemasa	
Course	Objective	es								
1. Able to problems 2. Able to	understar and proble summariz	nd the sign ems. e the resu	lts ar	nd consideration	n topics and to co ons of your resear sing accurate word	rch in a thesis.		veys, and	analyses necessary to solve	
Rubric										
			Ic	deal Level		Standard Level			Unacceptable Level	
Achievem	ent 1		si ar ex	nd to voluntar xperiments, in	esearch topics ily conduct	Able to understand the significance of research topics and to conduct experiments, investigations, and analyses to solve problems.			Able to understand the significance of the research topic and conduct experiments, investigations, and analyses to solve problems, but not sufficient.	
Achievem	ent 2		ar in			Able to describe and summarize A the results and discussions of research in accordance with the			Able to describe the results and discussions of the research as chapters using charts and tables.	
Achievem	Achievement 3 Assigned Department Ob		pr re ar di	esults using ac nd diagrams, a	f their research curate words	Able to present research results using appropriate words and diagrams.			Able to give a presentation on research results, but not not sufficient.	
Assiane	d Depart	ment Ol	oiec	tives						
					1 学習・教育到達度	夏目標 C-2 学習・	教育到達		-2 学習・教育到達度目標 E-3	
	g Metho									
Outline	<u> </u>	The goa	l of the solve te to	this course is to given probler society.	o apply and utilize ms and problems,	all the knowled and to enhance	dge and e the qu	l skills acquualifications	uired so far, to acquire practical s of engineers who can	
Style		The ove	rall a	s will conduct their research independently with the advice and guidance of their assigned supervisor rall grade will be 60% for the supervisor, 10% for the mid-term presentation, and 30% for the ition (oral presentation and abstract). [Class time: 300 hours]						
Notice		perform their sup solve the quidance	ance perviseir presented in the pervious properties and the pervious properties are pervious propertie	e. Students sho sor, communion roblems and pose content and	ould understand the cate with their supersollems, and carrell format of the grader	ne significance opervisors actively out their rese	of the re ly, indep arch in the cor	esearch ass pendently, accordanc ntent and r	dent's own wishes and academic signment assigned to them by and continuously in order to e with their supervisor's nethod of presentation at the dged by all academic advisors.	
Charact	eristics o	of Class /	Div	vision in Lea	arning					
□ Active	Learning			Aided by IC	Г	☐ Applicable t	o Remo	te Class	☐ Instructor Professionally Experienced	
Course	Plan									
			Ther	me			Goals			
15		1st	conc	duct of researd	ch		superv conduc examir	isor, stude at experiment are and disc	th the instructions of the ents will set a research topic, ents, surveys, and analyses, and cuss the results, prepare papers, of for presentation.	
1st Semeste r		2nd	conc	duct of researd	ch		superv conduc examir	isor, stude at experiment ne and disc	th the instructions of the ents will set a research topic, ents, surveys, and analyses, and cuss the results, prepare papers, of for presentation.	
		3rd	conc	duct of researd	ch		superv conduc examir	isor, stude at experiment ne and disc	th the instructions of the ints will set a research topic, ents, surveys, and analyses, and cuss the results, prepare papers, of for presentation.	
		4th	conc	duct of researc			etc., and prepare for presentation. In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc. and prepare for presentation.			

				In accordance with the instructions of the supervisor, students will set a research topic,
		5th	conduct of research	conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		6th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		7th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		8th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		9th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		10th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		11th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
	2nd Quarter	12th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		13th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		14th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		15th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		16th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		1st	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		2nd	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
2nd Semeste r	3rd Quarter	3rd	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		4th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.
		5th	conduct of research	In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.

		6th	conduct of resear	rch		supervisor, stu conduct experi examine and d	ments, surveys, iscuss the resul	research topic, , and analyses, and ts, prepare papers,	
		7th	conduct of resear	rch		In accordance supervisor, stu conduct experi	ments, surveys iscuss the resul	tions of the research topic, , and analyses, and ts, prepare papers,	
		8th	conduct of resear	-ch		In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, a examine and discuss the results, prepare papeletc., and prepare for presentation.			
		9th	conduct of resear	rch		In accordance with the instructions of the supervisor, students will set a research to conduct experiments, surveys, and analy examine and discuss the results, prepare etc., and prepare for presentation.			
		10th	conduct of resear	rch		conduct experi	research topic, , and analyses, and ts, prepare papers,		
		11th	conduct of resear	rch		In accordance supervisor, stu conduct experi examine and d etc., and prepa	research topic, , and analyses, and ts, prepare papers,		
	4th Quarter	12th	conduct of resear	rch		supervisor, stu conduct experi examine and d	ments, survevs	research topic, , and analyses, and ts, prepare papers,	
	C	13th	conduct of resear	rch		conduct experi	research topic, , and analyses, and ts, prepare papers,		
		14th	conduct of resear	rch		In accordance with the instructions of the supervisor, students will set a research topic, conduct experiments, surveys, and analyses, and examine and discuss the results, prepare papers, etc., and prepare for presentation.			
		15th	conduct of resear	rch		In accordance supervisor, stu conduct experi	tions of the research topic, , and analyses, and ts, prepare papers,		
		16th	presentation				results of your using appropriat	research and make te words and	
Evaluati	on Met	hod and	Weight (%)						
	E	xamination		Mutual Evaluations between students	Behavior	Portfolio	Other	Total	
Subtotal	0		40	0	0	0	60	100	
Basic Proficiency	, 0		0	0	0	0	0	0	
Specialize Proficiency	d /		30	0	0	0	50	80	
Cross Area	0		10	0	0	0	10	20	

A	Anan Col	lege	Year	2024			ourse Title	Structural Engineering 3
Course 1	Informat	ion		•		•		
Course Co	ode	1815C03	3		Course Category	У	Specialize	ed / Compulsory
Class Forr	nat	Lecture			Credits Academic (Academic	Credit: 2
Departme	nt	Course of	of Civil Engineerin	ng	Student Grade		5th	
Term		First Ser	nester		Classes per Wee	ek	前期:2	
Textbook Teaching		Concrete	e Structural Engir	neering (MORIKITA	PUBLISHING CO	O., LTI	O)	
Instructor	•	Kadono	Takuma					
1.Able to design me 2.Able to RC (reinfo 3.Able to safety of \$4.Able to	ethod, allowexplain the proced concional conci	ncrete rein wable strese mechanic rete). he basic se members. d the dural	es design method cal properties of r ectional forces of collity and fatique	 reinforcing bars and RCs subjected to b of RC, and conside 	I concrete, and conding moments	calculat s, shea	te the basi	cal design methods (limit state c cross-sectional dimensions of or axial forces, and consider the orces and section forces, and
Rubric			-					
			Ideal Level		Standard Level			Minimum Level
Achievement 1			reinforcement and character	d typical design	Able to understareinforcement nand characterist structures, and methods, and expenses are also and expenses and expenses are also and expenses and expenses are also and expenses are also and expenses are also are also and expenses are also	nethoo tics of typica	ls, types I desian	Able to explain concrete reinforcement methods, types and characteristics of structures, and typical design methods.
Achievement 2			and explain th properties of r and concrete, understand ar	ately understand ne mechanical reinforcing bars and accurately nd calculate the actional dimensions	reinforcing bars and concrete, and understand and calculate			Able to explain the mechanical properties of reinforcing bars and concrete, and calculate the basic cross-sectional dimensions of RC.
Achievement 3			reinforcing bal and understar	of calculate the base of and concrete, and and calculate ctional dimensions or axial forces, a safety of structum.		nsic sectory ojected nts, sh and co ural me	ctional I to ear forces onsider the embers.	Able to calculate the basic sectional forces of RCs subjected to bending moments, shear forces, or axial forces, and consider the safety of structural members.
Achievem	ent 4		Able to unders durability and properly consi		Able to understand the durability and fatigue of RC, and consider their basic safety.			Able to consider the basic safety of RC durability and fatigue.
Achievem	ent 5		characteristics of PCs, unders calculate presi sectional force	characteristics and classification of PCs, understand and calculate prestress forces and calculate		and an ess for		Able to explain the characteristics and classification of PC, calculate the prestress force and section force, and examine the usability.
Assigne	d Depart	ment Ob	piectives					
	到達度目標		-					
	g Metho							
Outline		RC (rein structure propertie actual st concrete	es. The goal of the sand design of the structures. In this constructures at constructures at constructures at constructures at constructures at constructures.	this course is to acc RC and PC, which a course, faculty men mpany use its expe	quire basic knowl are necessary for nber who was in rience to teach t	ledge of the decirion that the	and skills i esign, con e of resea urse.	ral forms of construction related to the mechanical struction, maintenance, etc. of rch, development and design of credit course, it is necessary to
Style				ore- and post-learni				
Notice		time, as subjects class cor material	you will be doing	g calculations during ls, structures, soil p ticipating in the cla aterials science 1 au	g the lecture. To	his cla	iss is base and to 4th	g a calculator with you every d on the knowledge of related years, so please review these d to the annual structural class but also self-study to
Charact	eristics c	of Class /	Division in Le	earning				
☐ Active	Learning		☐ Aided by I	СТ	☐ Applicable to	o Remo	ote Class	☐ Instructor Professionally Experienced
Course	Plan							
			Theme			Goals		
1st 1st Semeste Quarter		Outline / Concre	Outline / Concrete structure design met			itions of the te reinford teristics o	he goals, significance, plans, and nis course. / Able to explain rement methods, types and f structures, and typical design	
		2nd	Mechanical propo (reinforced conc	erties of materials (rete, concrete)	methods. Is used Able to explain the mechanical properties reinforcing bars and concrete.			

		3rd	Basics of RC struc	ctural calculation		Able to calculate dimensions of RO		sectional		
		4th	Limit state design (cross-section fail		members	Able to calculate subjected to ben and consider the	the basic section ding moments a safety of structu	nd shear forces,		
		5th	Limit state design (cross-section fail		members	Able to calculate the basic sectional forces of RC subjected to bending moments and shear forces, and consider the safety of structural members.				
		6th	RC member limit section failure and	state design met d usability)	hod (cross-	Able to calculate the basic sectional forces of RC subjected to bending moments and shear forces, and consider the safety of structural members.				
		7th	Limit state design (usability)	method for RC i	members	subjected to ben	Able to calculate the basic sectional forces of RC subjected to bending moments and shear forces, and consider the safety of structural members.			
		8th	Midterm exam							
		9th	Return of exam pomethod for RC me	apers / Allowable embers	e stress design	Able to calculate subjected to ben and consider the	the basic section ding moments a safety of structu	nd shear forces.		
		10th	Allowable stress of	Allowable stress design method for RC members			the basic section ding moments a safety of structu	nd shear forces.		
		11th	Limit state design (bending and axia	method for RC i al force)	members	subjected to ben	the basic section ding moments a safety of structu	nd shear forces.		
	2nd Quarter	12th	Limit state design (durability and fat	method for RC i	members	Able to do basic RC durability and	safety considerat d fatigue.	tions regarding		
	-	13th	Limit state design method for RC members (durability and fatigue)			Able to do basic RC durability and	safety considerat I fatigue.	ions regarding		
		14th	PC member desig	PC member design method			he characteristics PC, calculate the e, and examine the	prestress force		
		15th	PC member desig	n method		classification of F	Able to explain the characteristics and classification of PC, calculate the prestress force and section force, and examine the usability.			
		16th	(Final exam) Retu	ırn of exam pape	ers					
Evaluation	on Me	thod and	Weight (%)							
	E	xamination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal	al 60		0	0	0	40	0	100		
Basic Proficiency	ncy 20		0	0	0	10	0	30		
Specialized Proficiency	alized iency 30		0	0	0	20	0	50		
Cross Area Proficiency		0	0	0	10	0	20			

	Anan Co	llege	Year	Year 2024			Structural Engineering 2		
Course	Informa	tion							
Course Co	ode	1815C04	·	-	Course Categor	y Speciali	zed / Compulsory		
Class For	mat	Lecture			Credits	Acaden	nic Credit: 2		
Departme	ent	Course of C	Civil Engineering	9	Student Grade	5th			
Term		First Semes	ster		Classes per Wee	Week 前期:2			
Textbook Teaching	and/or Materials	reidaidema	nabukyouryouk	kougaku (KYORIT:	SU SHUPPAN CO.	., LTD.)			
Instructo	r	Inoue Taka	fumi						
Course	Objectiv	es es							
2 Ability t	n and solid to perform	ify knowledge design calcula	of structural er ations based on	ngineering (includ given conditions	ing structural me	chanics and m	naterials science).		
Rubric									
			Ideal Level		Standard Level		Minimum Level		
Achievem	nent 1	1	Able to accurat calculate basic designing base knowledge of s engineering, et	d on previous tructural	Able to explain a basic matters for based on previous structural engin	or designing ous knowledge	Able to understand the basics of designing based on their previous knowledge of structural engineering, etc.		
Achievem	nent 2		Able to accurat design calculat given condition	ions based on	Able to perform calculations bas conditions.	design ed on given	Able to understand design calculations based on given conditions.		
Achievem	nent 3								
Assigne	ed Depar	tment Obje	ctives						
	ng Metho								
Outline		Steel struct this lecture example pr	is to deepen you oblems and pra	a of the desian of	f steel structur egrating this k	and-pencil calculations. The goal of es such as bridges by solving many knowledge, we will design the main			
Style		class, you we structural non your ow conditions reclass, we we	vill solve many nechanics, you n. Assignment required by the ill be assigned	problems, but sir should not only s submissions mus assignment (dela a design task for	nce this is a composite the problem to submitted stays will result in pothe main girder of	prehensive exe is in class, but crictly by the d points being de of a plate girde	ng on the level of understanding. In ercise that includes topics such as also many exercises and problems eadline, based on the format and educted). In the second half of the er bridge. [Class time 30 hours]		
Notice		must be su (delays will	bmitted strictly result in points	by the deadline, being deducted)	based on the for	mat and condi	progress. Assignment submissions tions required by the assignment at others can understand.		
Charact	teristics	of Class / D	ivision in Le	arning	T				
☐ Active	Learning		☐ Aided by ICT ☐ Applica			Remote Clas	s Instructor Professionally Experienced		
Course	Dlan								
Course	Piaii	Ть	eme		1.	Goals			
		1				Able to explain and calculate 1) main load, 2)			
			Loads acting o		:	secondary load	d, and 3) others. and calculate 1) main load, 2)		
		2nd 1.	Loads acting o	n steel bridges	[:	secondary load	d, and 3) others.		
		3rd 2.	Mechanical pro	perties of steel			n and calculate 1) mechanical l 2) fatigue strength.		
	1st	4th 3.	Strength of bar	member		compressio	n and calculate 1) tension members, n members, and 3) others.		
	Quarter	5th 3.	Strength of bar	member		2) compressio	n and calculate 1) tension members, n members, and 3) others.		
		6th 4.	Steel bridge de	sign method		methods. ·	n and calculate steel bridge design		
1st Semeste r			Plate element oplications	design method an	id its	method of plat plane forces, a	n and calculate 1) the design te elements that receive out-of- and 2) the design method of plate receive in-plane forces.		
		8th mi	dterm/final exa	ım					
			Plate element oplications	design method an	id its	method of plat plane forces, a	n and calculate 1) the design te elements that receive out-of- and 2) the design method of plate receive in-plane forces.		
	2nd Ouarter		Design of mem ctional forces	bers subject to v	arious cross-		n and calculate 1) members ension and 2) members subjected n.		
	Qual to		Design of mem ctional forces	bers subject to v	arious cross-	Able to explair subjected to to to compression	n and calculate 1) members ension and 2) members subjected n.		
		12th 7.	Plate girder bri	dge design		Able to explain	n and calculate the 1) I digit.		
1	1	13th 7.	Plate girder bri	dge design		Able to explair	n and calculate the 1) I digit.		

	14th	7. Plate girder bri	dge design		Able to explain and calculate the 1) I digit.			
	15th	7. Plate girder bri	dge design		Able to explai	n and calculate	2) others.	
	16th	Answer return						
Evaluation	Method and V	Veight (%)						
	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total	
Subtotal	50	0	0	0	50	0	100	
Basic Proficiency	30	0	0	0	20	0	50	
Specialized Proficiency	20	0	0	0	30	0	50	
Cross Area Proficiency	0	0	0	0	0	0	0	

,	Anan Co	llege	Year	2024		Course Title	Programming
Course	Informa	tion					
Course Co	ode	1815I01			Course Category	y Specialize	ed / Compulsory
Class For	mat	Lecture			Credits	Academic	Credit: 2
Departme	ent	Course of	Civil Engineering	g	Student Grade	5th	
Term		Second Se	emester		Classes per Wee	ek 後期:2	
Textbook Teaching		Suuchikei	sannotamenoFor	tran90/95purogui	ramingunyumon	(Morikita Publis	ning Co., Ltd.)
Instructor	r	Inoue Tak	cafumi				
1. Able to 2. Able to 3. Able to	understa understa	nd the methond numerical numerical numerical	l integration met Ilve nonlinear eg	ression analysis an thods and be able uations and be ab s linear equations	to create prograr le to create progr	ns. rams.	
5. Able to Rubric	understa	nd how to ca	Iculate inverse n	natrices and be ab	le to create prog	rams.	
- KUDITC			Ideal Level		Standard Level		Minimum Level
Achievem	nent 1		Able to unders	tand the method ession analysis create programs.	Able to understate of simple regress and be able to comodify program	ssion analysis change and	Able to understand simple regression analysis methods and programs.
Achievem	ent 2		Able to undersintegration me able to create	tand numerical thods and be programs.	Able to understa integration meth able to change a programs.	hods and be	Able to understand numerical integration methods and their programs.
Achievem	ent 3			tand how to solve tions and be able rams.	Able to understa nonlinear equati to change and n programs.	ions and be able	
Achievement 4			simultaneous li	tand how to solve inear equations create programs.	Able to understa simultaneous lin and be able to c modify program	near equations change and	Able to understand how to solve simultaneous linear equations and its programs.
Achievement 5		Able to understalculate inversibe able to create	se matrices and	Able to understate inverse be able to change programs.	e matrices and	Able to understand how to calculate inverse matrix and its programs.	
	<u>d Depar</u> ig Metho	tment Obj od	ectives				
Outline		In this cla using exa	is class, students will learn basic numerical calculation methods and algorithms, as well a examples and practice problems, and learn the basic knowledge of numerical calculation				
Style		training) i	ass deals with Fortran, which is one of the programming languages. Learn basic numerical of ds and algorithms. In addition to lectures, students will conduct programming exercises (programming exercises) using computers in the seminar room. The "portfolio" of the evaluation percentage will be on the answers to the programming exercise assignments. urs of class time				
Notice		needed to	is so itself will be mainly written on the blackboard, but please bring your own textbook as it to confirm the basic functions of Fortran. Students should actively work on programming a room on their own after school.				
Charact	eristics		Division in Le				
☐ Active		,	☐ Aided by IC		☐ Applicable to	Remote Class	☐ Instructor Professionally Experienced
Course	Plan						
		Т	heme			Goals	
		1st G	Guidance, progra	mming basics		of programming	and the significance and overview and the basics of programming.
2nd		2nd p	programming basics				and the basics of programming.
		3rd S	imple regressior	n analysis		Able to understa regression analy using the least s	and and be able to program rsis and correlation coefficients equares method.
	3rd	4th S	imple regressior	n analysis	,	Able to understa regression analy	and and be able to program sis and correlation coefficients equares method.
r	Quarter	5th n	umerical integra	ition method	,	Able to understa	and and be able to program ration methods using the
		6th n	umerical integra	ition method	,	Able to understa	and and be able to program ration methods using the
		7th n	umerical integra	tion method	,	Able to understand and be able to programumerical integration using Simpson's form	
		<u> </u>				numericai integi	adon using simpson's formula.
		jour [II	nidterm exam				

		9th	numerical integ	gration method		Able to under numerical inte	stand and be alegration using S	ole to program impson's formula.	
		10th	Solving nonline	ng nonlinear equations			stand how to so 's method and l	olve linear equations be able to program.	
		11th	Solving nonline	ear equations		Able to under using Newton	stand how to so 's method and l	olve linear equations be able to program.	
	4th	12th	Solving simulta	neous linear equa	tions		ns using the Ga	olve simultaneous uss-Jordan method	
	Quarte	13th	Solving simulta	neous linear equa	tions		ns using the Ga	olve simultaneous uss-Jordan method	
		14th	Matrix inverse	calculation		Able to under inverse matrix	Able to understand and be able to program inverse matrix calculations.		
		15th	Matrix inverse	calculation		Able to under inverse matrix	stand and be al calculations.	ole to program	
		16th	Answer return						
Evaluat	ion Me	thod and	Weight (%)						
	E	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total	
Subtotal	I 30		0	0	0	70	0	100	
Basic Proficienc	cy 1	15	0	0	0	35	0	50	
Specialize Proficienc			0	0	0	35	0	50	
Cross Are Proficienc	ross Area roficiency		0	0	0	0	0	0	

Anan Colle	ege	Year	2024		Course Title	Civil Engineering Experiment 3
Course Information	on	ı				p =
Course Code	1815T05			Course Category	Specialize	ed / Compulsory
Class Format				Credits		Credit: 2
Department	Course of Ci	vil Engineering]	Student Grade	5th	
Term	Year-round			Classes per Week	前期:4 後	
Textbook and/or Teaching Materials	The teacher	s distribute do	cuments.	,		
Instructor	Osada Keng	o,Kagemasa S	huka			
Course Objectives	5					
discharge and calculat 2. Able to understand some instruments and	te the Reyno measureme d estimate di each phenoi nduct experii	lds number front methods of scharge using menon of oper ments related	om experimental didischarge in an operation of these data. In channel flow: su	lata. pen channel. Able bcritical flow, supe	to measure ve	cs. Able to measure a pipeline elocities and water depths using and hydraulic jump, and conduct demand (BOD).
Rubric						
	I	deal Level		Standard Level		Minimum Level
Course Objective 1	/- i C	Able to observe aminar and tur understand end haracteristics. upipeline disch	bulent flow and ough each flow's Able to measure arge and evnolds number	Able to observe a laminar and turbu understand each characteristics. Al a pipeline dischar calculate the Reynfrom experimenta	ilent flow and flow's ole to measure ge and nolds number	Able to observe a pipeline's laminar and turbulent flow and understand each flow's characteristics. Able to measure
Course Objective 2	r c , v ii		methods of open channel. e velocities and sing some d estimate	Able to understan measurement me discharge in an op Able to measure water depths usin instruments and edischarge using the	thods of ben channel. velocities and ig some estimate	Able to understand measurement methods of discharge in an open channel. Able to measure velocities and water depths using some instruments and estimate discharge using these data with help from other group members.
Course Objective 3	e c s j	Able to understeach phenomenthannel flow: stupercritical floump, and concepted the con	non of open ubcritical flow, w, and hydraulic	Able to understan phenomenon of o flow: subcritical fl supercritical flow, jump, and conduc experiments.	pen channel ow, and hydraulio	Able to slightly understand each phenomenon of open channel flow: subcritical flow, supercritical flow, and hydraulic jump, and conduct flume experiments.
Course Objective 4	S	ignificance of I	e principles and DO and BOD ad perform them.	Understand the p and BOD experim perform them.		Able to perform DO and BOD experiments.
Course Objective 5	S	Inderstand the ignificance of pand experimen	principles and physical physic	Understand the p experiments and with pH.		Able to perfor pH experiments.
Assigned Departn	nent Objec	ctives				
学習・教育到達度目標[)-2 学習・教	育到達度目標 D	-4 学習・教育到達原	度目標 E-1 学習・教	育到達度目標 E	
Teaching Method	_					
Outline	Hydraulic Er methods of In the secor Environmen	ngineering clas flow measurer nd semester, le tal Engineering y obtaining kn	s. Learners aim to nent by using inst earners conduct ex a class. Learners v	o obtain knowledge ruments, and som xperiments on wat will understand dee	e and technique e calculation re er quality usine eply technique	learned in each Hydraulics and les of flow patterns, some methods. g knowledge learned in s that help environmental lality environment quantitatively
Style	Step 2: The with student calculation r Step 3: Lear Step 4: Lear objectives.	teachers give ts of the same nethods throughers conduct mers take the	group. Learners of gh these tasks bef experiments in a o	cion items. Learner batain knowledge a fore conducting ex group. Soft each semester	and techniques periments.	chese items and write a report sof essential measurement and e achievement level of the course
Notice	Wear suitab please be ca Please bring	le clothing and reful during ex a calculator to	I shoes for the experiments. Moreon every class beca	periment. Althouah	e to handle exp onduct many o	not handle dangerous things, perimental instruments carefully. calculations to prepare reports.
Characteristics of	Class / Di	vision in Lea	arning			
☐ Active Learning		Aided by IC	<u> </u>	☐ Applicable to F	Remote Class	☐ Instructor Professionally Experienced
Course Plan						
	The	eme		Go	oals	

		1st	Class guidance. Pre-investigation on the estimation of a discharge coefficient of a triangular weir (investigation of experiment and calculation methods). Pre-investigation on the measurement method of water depth in a complex open channel flow which includes subcritical, supercritical, and hydraulic jump.	Able to investigate measurement and calculation methods for estimating a discharge coefficient of a triangular weir and understand experimental objectives. Able to investigate the measurement of water depth and calculation methods on a complex open channel flow and understand experimental objectives.
		2nd	Pre-investigation on the estimation of a discharge coefficient of a triangular weir (investigation of experiment and calculation methods). Pre-investigation on the measurement method of water depth in a complex open channel flow which includes subcritical, supercritical, and hydraulic jump.	Able to investigate measurement and calculation methods for estimating a discharge coefficient of a triangular weir and understand experimental objectives. Able to investigate the measurement of water depth and calculation methods on a complex open channel flow and understand experimental objectives.
		3rd	Pre-investigation on the estimation of a discharge coefficient of a triangular weir (investigation of experiment and calculation methods). Pre-investigation on the measurement method of water depth in a complex open channel flow which includes subcritical, supercritical, and hydraulic jump.	Able to investigate measurement and calculation methods for estimating a discharge coefficient of a triangular weir and understand experimental objectives. Able to investigate the measurement of water depth and calculation methods on a complex open channel flow and understand experimental objectives.
	1st Quarter	4th	Pre-investigation on the estimation of a discharge coefficient of a triangular weir (investigation of experiment and calculation methods). Pre-investigation on the measurement method of water depth in a complex open channel flow which includes subcritical, supercritical, and hydraulic jump.	Able to investigate measurement and calculation methods for estimating a discharge coefficient of a triangular weir and understand experimental objectives. Able to investigate the measurement of water depth and calculation methods on a complex open channel flow and understand experimental objectives.
		5th	Experiment on the estimation of a discharge coefficient of a triangular weir. Experiment on the measurement of the water surface profile in a complex open channel flow.	Able to understand the estimation method of the discharge coefficient of a triangular weir Able to understand each phenomenon of open channel flow: subcritical flow, supercritical flow, and hydraulic jump, and conduct flume experiments.
1st Semeste r		6th	Experiment on the estimation of a discharge coefficient of a triangular weir. Experiment on the measurement of the water surface profile in a complex open channel flow.	Able to understand the estimation method of the discharge coefficient of a triangular weir Able to understand each phenomenon of open channel flow: subcritical flow, supercritical flow, and hydraulic jump, and conduct flume experiments.
		7th	Pre-investigation on the measurement and calculation method of discharge of an open channel (investigation of methods used in real rivers). Pre-investigation of pipeline experiment (investigation of measurement and calculation methods).	Able to investigate some methods for estimating a discharge in real rivers and understand experimental objectives. Able to investigate the observation of a pipeline's laminar and turbulent flow and calculation methods of the Reynolds number and friction loss and understand experimental objectives.
		8th	Pre-investigation on the measurement and calculation method of discharge of an open channel (investigation of methods used in real rivers). Pre-investigation of pipeline experiment (investigation of measurement and calculation methods).	Able to investigate some methods for estimating a discharge in real rivers and understand experimental objectives. Able to investigate the observation of a pipeline's laminar and turbulent flow and calculation methods of the Reynolds number and friction loss and understand experimental objectives.
		9th	Pre-investigation on the measurement and calculation method of discharge of an open channel (investigation of methods used in real rivers). Pre-investigation of pipeline experiment (investigation of measurement and calculation methods).	Able to investigate some methods for estimating a discharge in real rivers and understand experimental objectives. Able to investigate the observation of a pipeline's laminar and turbulent flow and calculation methods of the Reynolds number and friction loss and understand experimental objectives.
	2nd Quarter	10th	Pre-investigation on the measurement and calculation method of discharge of an open channel (investigation of methods used in real rivers). Pre-investigation of pipeline experiment (investigation of measurement and calculation methods).	Able to investigate some methods for estimating a discharge in real rivers and understand experimental objectives. Able to investigate the observation of a pipeline's laminar and turbulent flow and calculation methods of the Reynolds number and friction loss and understand experimental objectives.
		11th	Experiment on the estimation of a discharge in an open channel. Experiment on the observation and measurement of a pipeline flow.	Able to understand measurement methods of discharge in an open channel. Able to measure velocities and water depths using some instruments and estimate discharge using these data. Able to observe a pipeline's laminar and turbulent flow and understand each flow's characteristics. Able to measure a pipeline discharge and calculate the Reynolds number and friction loss from experimental data.

Speciment on the estimation of a discharge in an open channel. Albe to measure instruments and estimate discharge using the period of a pipeline flow. Several instruments and estimate discharge using the period of a pipeline flow. Several instruments and estimate discharge using the period of a pipeline flow. Several instruments and estimate discharge using the period of a pipeline flow. Several instruments and estimate discharge using the control of a pipeline flow. Several instruments and estimate discharge using the control of a pipeline flow. Several instruments and estimate discharge in an open channel. Albe to measure a pipeline discharge and open channel. Albe to measure a pipeline flow. Several instruments and estimate discharge using the control of a pipeline flow. Several instruments and estimate discharge using the control of a pipeline flow. Several instruments and estimate discharge using the control of a pipeline flow. Several instruments and estimate discharge using the control of a pipeline flow. Several instruments and estimate discharge using the control of a pipeline flow. Several instruments and estimate discharge using the control of a pipeline flow. Several instruments and estimate discharge in an open channel. Albe to measure a pipeline discharge and several instruments and estimate discharge using the pipeline flow. Several instruments and estimate discharge using the experiment and pipeline flow. Several instruments and estimate discharge using the experiment and pipeline flow. Several instruments and estimate discharge using the experiment and pipeline flow. Several instruments and estimate discharge using the experiment and pipeline flow. Several pipeline flow instruments and estimate discharge using the experiment and pipeline flow. Several pipeline flow instruments and pipeline flow instruments and estimate discharge using the experiment and pipeline flow. Several pipeline flow instruments and pipeline flow instruments and estimate discharge using the experiment and pipeline flow			_							
Experiment on the estimation of a discharge in an open channel. Belt to measure depth surgis some open channel. Experiment on the observation and measurement and estimate discharge using these data. Able to observe a pipeline similar and turbule flow and understand each flow's characteristic adultation of a pipeline flow. Able to measurement methods of discharge in an open channel. Experiment on the estimation of a discharge in an open channel. Seperate the experimental data and prepare and estimate discharge using these data. Able to measurement methods of discharge in an open channel. Experiment on the observation and measurement of a pipeline flow. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to be a discharge using these data. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to measure a pipeline discharge using these data. Able to security and prepare a data and prepare and prepare and friction loss from experimental data and prepare and pr			12th	open c Experir	hannel. nent on the observ	•		discharge in velocities an instruments data. Able to obse flow and und Able to meas calculate the	an open channel. d water depths us and estimate disc rve a pipeline's lar lerstand each flow sure a pipeline dis Reynolds number	Able to measure ing some harge using these minar and turbulent 's characteristics. charge and
Superiment on the estimation of a discharge in an open channel. Able to measure evolutions and water depths using some experiment on the observation and measurement of a pipeline flow.			13th	open c Experir	hannel. nent on the observ	•		discharge in velocities an instruments data. Able to obseflow and und Able to meas calculate the	an open channel. d water depths us and estimate disc rve a pipeline's lar lerstand each flow sure a pipeline dis Reynolds number	Able to measure ing some harge using these minar and turbulent 's characteristics. charge and
Substant Semeste Substant Substan			14th	open c Experir	hannel. ment on the observ	J		discharge in velocities an instruments data. Able to obseflow and und Able to meas calculate the	an open channel. d water depths us and estimate disc rve a pipeline's lar lerstand each flow sure a pipeline dis Reynolds number	Able to measure ing some harge using these minar and turbulent 's characteristics. charge and
Semester			15th			ntal data and prepa	re			nental data and
Semeste Seme			16th			ntal data and prepa	re			nental data and
2nd Preliminary study of wastewater treatment experiments 2nd 2n			1st	Prelimi	nary study of river	water quality		their purposi	e concerning river	ns and understand water quality
Ather the experiment and prepare a preport based on them. 2nd Semeste r 2nd Sem					water quality		their purpose	e concerning river	ns and understand water quality	
Preliminary study of wastewater treatment experiments. Ath Quarter Preliminary study of wastewater treatment experiments.		3rd Rive		River v	vater quality experi	ment				quality parameters
Sth Organize the experimental data and prepare a report based on them.			4th	River v	vater quality experi	ment		Able to expe (pH, DO, BO	riment with water D, etc.).	quality parameters
Semester Geth Organize the experimental data and prepare a report Able to organize the experimental data and prepare a report based on them. Able to organize the experimental data and prepare a report based on them. Able to organize the experimental data and prepare a report based on them. Able to organize the experimental data and prepare a report based on them. Able to organize the experimental data and prepare a report based on them. Able to organize the experimental data and prepare a report based on them. Able to organize the experimental data and prepare a report based on them. Able to study the specified items and understant their purpose concerning wastewater treatment experiments. Able to study the specified items and understant their purpose concerning wastewater treatment experiments. Able to study the specified items and understant their purpose concerning wastewater treatment experiments. Able to reproduce organic matter removal by the activated sludge process at the laboratory level 12th Wastewater treatment experimental activated sludge process at the laboratory level 13th Organize the experimental data and prepare a report based on them. 14th Organize the experimental data and prepare a report based on them. 15th Organize the experimental data and prepare a report based on them. 15th Organize the experimental data and prepare a report based on them. 16th Organize the experimental data and prepare a report based on them. Evaluation Method and Weight (%) Midterm/final Quiz Portfolio Presentation/Attit Other Total Subtotal 20		Qua. co.	5th					Able to organ	nize the experime port based on the	ntal data and m.
Present			6th					Able to orga	nize the experime	ntal data and
Semeste Post			7th		ze the experimenta	l data and prepare	a			
Preliminary study of wastewater treatment experiments. Able to study the specified items and understant their purpose concerning wastewater treatment experiments. 10th Preliminary study of wastewater treatment experiments. Able to study the specified items and understant their purpose concerning wastewater treatment experiments. 11th Wastewater treatment experiment Able to reproduce organic matter removal by the activated sludge process at the laboratory level activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level activated sludge process at the laboratory level to reproduce organic matter removal by the activated sludge process at the laboratory level activated sludge process a			8th		ize the experimental data and prepare a			prepare a report based on them.		
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4th Quarter 4th Quarter 4th Quarter 12th Wastewater treatment experiment 13th Organize the experimental data and prepare a report thased on them. 14th Organize the experimental data and prepare a report based on them. 15th Organize the experimental data and prepare a report based on them. 16th Organize the experimental data and prepare a report based on them. 16th Organize the experimental data and prepare a report based on them. Evaluation Method and Weight (%) Midterm/final Exam Quiz Portfolio Presentation/Attit ude Subtotal 20 0 80 0 0 0 100 Basic Proficiency 15 0 60 0 0 0 75 Specialized Proficiency 15 0 60 0 0 75			10th			ewater treatment		their purpose	e concerning wast	ns and understand ewater treatment
13th Organize the experimental data and prepare a report based on them.			11th	Waste	water treatment exp	periment		Able to repro	oduce organic mat dge process at the	ter removal by the laboratory level.
13th Organize the experimental data and prepare a report based on them. 14th Organize the experimental data and prepare a report based on them. 15th Organize the experimental data and prepare a report based on them. 15th Organize the experimental data and prepare a report based on them. 16th Organize the experimental data and prepare a report based on them. 16th Organize the experimental data and prepare a report based on them. Evaluation Method and Weight (%) Midterm/final Exam Quiz Portfolio Presentation/Attit ude Other Total Subtotal 20 0 80 0 0 0 100 Basic Proficiency 5 0 20 0 0 0 25 Specialized Proficiency 15 0 60 0 0 0 75			Waste	water treatment exp	periment		Able to repro	oduce organic mat dge process at the	ter removal by the laboratory level.	
14th Organize the experimental data and prepare a report based on them.			13th		ze the experimenta	I data and prepare	а		-	· · · · · · · · · · · · · · · · · · ·
15th Organize the experimental data and prepare a report based on them.	_{1.4th} Orga		Organi	ze the experimenta	l data and prepare	a	Able to orga	nize the experime	ntal data and	
16th Organize the experimental data and prepare a report based on them.	15th		15th	Organi	ze the experimenta	l data and prepare	a	Able to orga	nize the experime	ntal data and
Evaluation Method and Weight (%) Midterm/final Exam Quiz Portfolio Presentation/Attit ude Other Total Subtotal 20 0 80 0 0 100 Basic Proficiency 5 0 20 0 0 25 Specialized Proficiency 15 0 60 0 0 75			16th	Organi	Organize the experimental data and prepare a			Able to orga	nize the experime	ntal data and
Exam Quiz Portion ude Other Total Subtotal 20 0 80 0 0 100 Basic Proficiency 5 0 20 0 0 25 Specialized Proficiency 15 0 60 0 0 75	Evaluati	on Met	hod and		t (%)			110.000.000		
Subtotal 20 0 80 0 0 100 Basic Proficiency 5 0 20 0 0 25 Specialized Proficiency 15 0 60 0 0 75				nal	Quiz	Portfolio		entation/Attit	Other	Total
Specialized Proficiency 15 0 60 0 0 75	Subtotal 20		20				0		_	+
Proficiency 15 0 00 0 75	Specialized									
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Cross Area Proficiency 0 0 0 0	Cross Are Proficienc		0		0	0	0		0	0

,	Anan Col	lege		Year	2024			urse itle	Design and Drawing 2		
Course	Informat	tion									
Course Co	ode	1895402	2			Course Catego	ry S	Specializ	ed / Elective		
Class Forr	mat	Lecture				Credits			c Credit: 2		
Departme	ent	Course of	of Civ	/il Engineering	<u> </u>	Student Grade		th			
Term		Year-rou	ınd			Classes per We	eek į	前期:2 後	期:2		
Textbook Teaching		これで完	璧!長	期優良住宅							
Instructor	-	Ebisuno	Akio	,Moriyama Ta	kuro						
Course	Objectiv	es									
2. 必要な 3. 空間 4. 建築設	は図面情報や (3次元のひ と計の進め方	P記号・寸法 ろがり)を jを理解し、	等を! 意識し 説明	正確に記入した ノて、エスキー) できる。	的特徴や寸法計画 正確な図面作成や スや設計図面の表現 の担い手に大きな	模型作製ができる えできる。		る。			
Rubric											
			理	想的な到達レヘ	ベルの目安	標準的な到達レイ	ベルの目	安	未到達レベルの目安		
評価項目1			のを	大まかな形態的	、造及び鉄骨構造 り特徴や寸法計画 く正確な説明がで	鉄筋コンクリー の大まかな形態的 を理解できてお	的特徴やす	寸法計画	鉄筋コンクリート造及び鉄骨構造 の大まかな形態的特徴や寸法計画 の理解が不十分であり、説明が十 分にはできない。		
評価項目2			等成き	を正確に記入し やこれを反映し る。	情報や記号・寸法 した正確な図面作 した模型作製がで	最低限必要な図i 法等を正確に記え これを反映した相。	入した図	面作成や	必要な図面情報や記号・寸法等を 正確に記入した図面作成が十分に はできない。模型作製も十分には できない。		
評価項目3			7	、エスキースや き、実際的で的	ろがり)を意識し や設計図面が表現 内確な説明もでき	空間(3次元のひて、エスキース ^も できる。)ろがり) や設計図[を意識し 面が表現	プロスキースや設計図面が十分に描けない。		
評価項目4		を	洽的な建築設記 理解し、具体的できる。	十の進め方や意義 りに詳しい説明が	意義 建築設計の進め方 、説明ができる。		を理解し	建築設計の進め方の理解が不十分で、説明が部分的にしかできない。			
評価項目5			かき	環境づくりの担	環境に及ぼす影響 日い手に果たす大 こ具体的に説明で	建築設計行為が現場ででは、 で環境づくりの対象な役割を説明できる。	担い手に	ぼす影響 果たす大	建築設計行為が、環境に及ぼす影響や環境づくりの担い手に大きな役割を果たすことを十分には認識していない。		
Assigne	d Depart	tment Ob	nent Objectives								
学習・教育	到達度目標	₹ B-1 学習・	教育	舒到達度目標 C-	2 学習・教育到達原	度目標 E-1 学習・	教育到達	度目標 [-2		
Teachin	g Metho	<u>d</u>									
Outline		立面図・ する縮尺 齢者等対	断面[での[策他]	図を描き、2次 <i>3</i> 図面を描き、さ) に係る計算等	元の図面から3次元。 らに模型づくりまた を行うことにより、	の平面図のトレースに引き続き、鉄筋コンクリート造・鉄骨構造も含め この空間をよりイメージを深め、理解できるようにする。より詳細を表 たはパース作成等,積算,性能表示(構造,温熱,一次エネルギー, 、建築構造の仕組みを理解する。 一級建築士の担当教員が、その経験を活かし、授業を行うものである。					
Style				時間+自学自習		110000000000000000000000000000000000000	3,7,2,7,5 (C-2412/30			
Notice				土試験の受験資	格要件として定めた	こ指定科目であり	、修得す	ることに	より実務経験年数などの受験資格が		
		有利とな									
Charact	eristics of	of Class /	Div	ision in Lea	arning						
☐ Active Learning				Aided by IC	Γ	☐ Applicable t	o Remot	e Class	☐ Instructor Professionally Experienced		
	D.										
Course Plan			-								
			Ther	me			Goals	フャッテルラ			
		1st	小規	模な建築物の設	清十		設計課題 想がもて 空間・環	要求に対 る。 境をつく	†図面、模型の作製ができる。 対して、自らが学習しながら、設計構 、るために、学習内容を活かして知識 とができる。		
1st Semeste		2nd	小規	模な建築物の設	/ 言十		エスキー 設計課題 想がもて 空間・環	を組み立てることができる。 エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設 想がもてる。 空間・環境をつくるために、学習内容を活かして を組み立てることができる。			
Samacta 15	Quarter	3rd	小規	模な建築物の設	清十		想がもて 空間・環	る。 鏡をつく	†図面、模型の作製ができる。 対して、自らが学習しながら、設計構 べるために、学習内容を活かして知識 ∴ができる。		
		4th	小規	模な建築物の設	清十	エスキースや設計図面、模型の 設計課題要求に対して、自らが 想がもてる。			すして、目らが学習しながら、設計構 、るために、学習内容を活かして知識		

			1	T
		5th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		6th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		7th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		8th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		9th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		10th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		11th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
	2nd Quarter	12th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		13th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		14th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		15th	プレゼンテーション	自らが設計、デザインした建築物について、プレゼン テーションする能力を育む
		16th	プレゼンテーション	自らが設計、デザインした建築物について、プレゼン
		1st	小規模な建築物の設計	テーションする能力を育む エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		2nd	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
2nd	3rd	3rd	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
Semeste	Quarter	4th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		5th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。
		6th	小規模な建築物の設計	エスキースや設計図面、模型の作製ができる。 設計課題要求に対して、自らが学習しながら、設計構 想がもてる。 空間・環境をつくるために、学習内容を活かして知識 を組み立てることができる。

TX4											
### Ath Quarter 12th 小規模な建築物の設計			7th	小規模な建築物の設	清十		設計課題要求に対 想がもてる。 空間・環境をつく	して、自らが学習 るために、学習内	しながら、設計構		
Pth			8th	小規模な建築物の設	清十		設計課題要求に対して、自らが学習しながら、設計構想がもてる。 空間・環境をつくるために、学習内容を活かして知識				
10th 小規模な建築物の設計 担訴を正さ。 空間・環境をつくるために、学習内容を活かして知識を組み立てることができる。 記言課題要求に対して、自らが学習しながら、設計構			9th	小規模な建築物の設	清十		設計課題要求に対 想がもてる。 空間・環境をつく	して、自らが学習 るために、学習内	しながら、設計構		
11th			10th	小規模な建築物の設	設計課題要求に対します。	して、自らが学習 るために、学習内	しながら、設計構 				
4th Quarter 12th 小規模な建築物の設計 設計構施してる。 空間・環境をつくるために、学習内容を活かして知識を組み立てるごとができる。設計課題要求に対して、自らが学習しながら、設計構想がもてる。 工スキースや設計図面、模型の作製ができる。設計課題要求に対して、自らが学習しながら、設計構想がもてる。で間・環境をつくるために、学習内容を活かして知識を組み立てることができる。 コースキースや設計図面、模型の作製ができる。設計課題要求に対して、自らが学習しながら、設計構想がもてる。空間・環境をつくるために、学習内容を活かして知識を組み立てることができる。 コースキースや設計図面、模型の作製ができる。設計課題要求に対して、自らが学習しながら、設計構想がもてる。空間・環境をつくるために、学習内容を活かして知識を組み立てることができる。 コースキースや設計図面、模型の作製ができる。設計課題を表して、自らが学習しながら、設計構想がもてる。空間・環境をつくるために、学習内容を活かして知識を組み立てることができる。 コースキースや設計図面、模型の作製ができる。設計課題を表している。対して、自らが学習しながら、設計構想がもてる。空間・環境をつくるために、学習内容を活かして知識を組み立てることができる。 コースキースや設計図面、模型の作製ができる。設計課題を表している。対して、自らが学習しながら、設計構想がもてる。空間・環境をつくるために、学習内容を活かして知識を組み立てることができる。 コースキースや設計図面、模型の作製ができる。設計課題を表している。対しているのできる。 コース・フェーションする能力を育む コース・フェーション コース・フェーションする能力を育む コース・フェーションする能力を含むするになる。 コース・フェーション コース・フェーションするになる。コース・フェーションはないできる。コース・フェーションはないできる。 コース・フェーション コース・フェース・フェーション コース・フェーション コース・フェー			11th	小規模な建築物の設	清十		設計課題要求に対し 想がもてる。 空間・環境をつく	して、自らが学習 るために、学習内	しながら、設計構		
13th			12th	小規模な建築物の設	清十		設計課題要求に対 想がもてる。	して、自らが学習	しながら、設計構		
14th			13th	小規模な建築物の設	清十		エスキースや設計[設計課題要求に対けしてる。 空間・環境をつくる	図面、模型の作製 して、自らが学習 るために、学習内	ができる。 しながら、設計構		
F-ションする能力を育む			14th	小規模な建築物の設	清十		設計課題要求に対し 想がもてる。 空間・環境をつく	して、自らが学習 るために、学習内	しながら、設計構		
16th プレゼンテーション 自らが設計、デザインした建築物について、プレゼン			15th	プレゼンテーション	,		自らが設計、デザーテーションする能	インした建築物に 力を育む	ついて、プレゼン		
Evaluation Method and Weight (%) 試験 発表 相互評価 態度 ポートフォリオ その他 Total Subtotal 0 0 0 0 100 100 基礎的能力 0 0 0 0 20 20 専門的能力 0 0 0 0 40 40			16th	プレゼンテーション		自らが設計、デザ	 インした建築物に	ついて、プレゼン			
試験 発表 相互評価 態度 ポートフォリオ その他 Total Subtotal 0 0 0 0 100 基礎的能力 0 0 0 0 20 20 専門的能力 0 0 0 0 40 40	Evaluati	on Meth	od and \	Neight (%)			,				
Subtotal 0 0 0 0 100 100 基礎的能力 0 0 0 0 20 20 専門的能力 0 0 0 0 40 40					相互評価	態度	ポートフォリオ	その他	Total		
専門的能力 0 0 0 0 40 40	Subtotal	0			†	0		100	100		
	基礎的能力	0		0	0	0	0	20	20		
分野横断的能力 0	専門的能力	0		0	0	0	0	40	40		
	分野横断的能力 0 0 0										

Anan College			Year	Year 2024			ourse Title	Architectural Planning 3		
Course	Informat	tion					Title	-		
Course Information Course Code 1895D01 Course Category Specialized / Elective										
Class Forr		Lecture			Credits Academic			·		
Departme			of Civil Engineer	Civil Engineering			5th	Credit. 2		
Term		First Ser		<u> </u>		Student Grade 5th Classes per Week 前期:2				
Textbook Teaching	and/or Materials	Building	Environmental	elasses per Week 1857/372 Easy Building Equipment, Gakugei Publishing Co.						
Instructor	-	Tada Yu	•							
Course Objectives										
1. To be a oriented s 2. To und evaluation Understar Understar	able to exposicity. erstand the control of the cont	lain the role role of bu	uilding facilities undamentals of of thermal conc	and to be able to ex	plain the indoor	enviro	nment and	d the formation of a recycling- d environmental performance and be able to propose a		
Rubric	710 111001	ericirriai cir	VII OTITICITEI							
			Ideal Level		Standard Level			Unacceptable Level		
Achievement 1			Understand construction formation of oriented soc explain cons indicators ar actual proble Construction	iety, and be able to truction evaluation apply them to ems. I evaluation indexes ined and applied to	Understand the role of the construction sector in the formation of a recycling-oriented society, and be able to explain construction evaluation		the ng- be able to evaluation hem to	Construction Sector for Establishing a Recycling-Oriented Society and can only partially explain the construction evaluation indicators.		
Achievement 2			Understand equipment a Explain indo environment	the role of building and or environment and all performance and apply them to	Understand the role of building equipment and be able to explain indoor environment and environmental performance assessment.		le to nment and	Understands the role of building equipment and can only partially explain indoor environmental and environmental performance assessment.		
Achievement 3			lliahtina, illur	the fundamentals of nination, and color to apply them to tical problems.	Understand and explain the fundamentals related to lighting, illumination, and color.		to	Unable to understand and only partially explain basic issues related to lighting, illumination, and color.		
Achievement 4			of thermal convection, a radiation. Understand thermal convection, a radiation, an	the fundamentals of duction, thermal and thermal id be able to omfortable indoor	Understand the fundamentals of thermal conduction, thermal convection, and thermal radiation. Understand the fundamentals of thermal conduction, thermal convection, and thermal radiation, and be able to describe a comfortable indoor thermal environment.		hermal nal imentals o hermal nal e to e indoor	"About thermal conduction, thermal convection, and		
		tment Ob 『A-1 学習・	ojectives 教育到達度目標	A-2						
	g Metho									
Outline Students learn about air conditioning, water supply and drainage, sanitation, electrical, and communication facilities for the purpose of understanding the roles and operating principles of facilities in buildings. In addition, the overall building environment is studied by dividing it into four fields: light environment, therm environment, air quality environment, and sound environment.								, electrical, and communication of facilities in buildings. In elds: light environment, thermal		
Style		This cou	rse is a credit c	ourse, so a report is + 60 hours of self-sti	required as pre	- and p	ost-learni	ng.		
Notice		This sub	ject is a designation, a	ated subject that is s	stipulated as a re s subject will giv	equirer ve you	nent for el an advant	igibility to sit for the professional age in terms of eligibility to sit for		
Charact	eristics o	_	•	- <i>'</i>	CHEHCE.					
Characteristics of Class / Division in Learning										
☑ Active	Learning		☑ Aided by	☑ Aided by ICT □ A		☐ Applicable to Remote Class		☑ Instructor Professionally Experienced		
Course	Dlan									
Course	1 1011	Theme Goals								
1st Semeste r	1st Quarter	1st		truction equipment	Understand the r		ngineering nmental is	role of equipment in buildings and structures, life cycles, global sues, international standards, ia, etc.		
		2nd	Thermal enviro	nal environment, envelope performance			Understand the following items and be able to explain comfortable indoor thermal environment. (1) Conducted heat, convection heat, radiant heat, heat quantity, etc. (2) Thermal conductivity, convective heat transfer coefficient, radiant heat transfer coefficient, etc.			

		1								
		3rd	Thermal environment, envelope performance			Understand the following items and be able to explain a comfortable indoor thermal environment. (3) Heat storage, thermal insulation, airtightness, etc. (4) Humidity, condensation, enthalpy, etc.				
			Indoor Environmer Performance Asses		ental	Explain indoor en performance asse environment inde and energy rating	vironmental and essment, such as ex, indoor air qua	environmental thermal		
		5th	light environment			"Understand the explain about cor and urban landsc (1) daylight, sola environment, bric (1) daylight, sola environment, bric illuminance, dayli (3) illuminance, c	nfortable indoor ape. r radiation, etc., ght visual conditi r radiation, etc., aht viewing cond	environment (2) visual ons, etc. (2) visual itions, etc., (3)		
		6th	air conditioning equipment			Understand air conditioning equipment and be able to explain major models, configurations, and methods.				
		7th	Ventilation equipment, disaster prevention equipment, fire extinguishing equipment			"To understand and explain natural ventilation, mechanical ventilation, smoke-proof compartments, natural smoke exhaust, mechanical smoke exhaust, etc. for air conditioning equipment. fire alarms, evacuation equipment, emergency equipment, etc. for fire protection equipment, and understand and explain the principles of fire extinguishing and the types and roles of fire extinguishing equipment for fire extinguishing equipment."				
		8th	midterm examination							
		9th	Water supply facili drainage facilities, facilities			Understand and be able to explain the purpose and types of water supply and drainage, as well as water supply and hot water systems.				
		10th	Water supply facilities, hot water supply facilities, drainage facilities, sanitation facilities, septic tank facilities			Understand and explain the types of sanitary fixture equipment, traps, septic tanks, underground pipes, and water treatment plants.				
		11th	Electrical and com	munication equip	Understand and be able to explain to roles of power supply equipment an equipment based on an understand knowledge of electricity.			and wiring		
		12th	Electrical and communication equipment air quality environment			Understand and be able to explain the types and roles of power supply equipment and wiring equipment based on an understanding of basic knowledge of electricity.				
Q Q	nd Juarter	13th				Understand and explain indoor air quality issues, including the following. (1) permissible concentrations and ventilation requirements, etc.; (2) ventilation planning and ventilation, etc.				
		14th	sound environment		Understand the following items and be able to explain the sound environment. (1) Elements of sound and hearing, etc. (2) Physical representation of sound and its units (3) Sound insulation, vibration, noise and evaluation methods (4) Acoustic materials and equipment.					
		15th	Solar Heat Utilization / Solar System			Understand the basics of solar heat utilization, daylight utilization, solar water heaters, solar systems, and the role of solar systems, and be able to explain them.				
		16th	Return of final exa	Return of final examinations			So usio to explain them.			
Evaluation	n Meth		Veight (%)							
		amination	Quiz	Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal	Subtotal 60		10	0	0	0	0	70		
Basic Proficiency	0		0	0	0	0	0	0		
Specialized Proficiency 60			10	0	0	0	0	70		
Cross Area Proficiency			0	0	0	0	0	0		

Anan College		Year	Year 2024		Course Title		Low of Construction		
Course Information									
Course Co		1895H01				Specialized		ed / Elective	
Class Forn					Course Categor Credits	,	•	Credit: 2	
Departme		Course of	f Civil Engineerir	Civil Engineering			5th		
Term	-	Second S			Classes per We				
Textbook Teaching I		Easy Buil	ding Regulations	ns (Gakugei Shuppansha)					
Instructor Tada Yutaka									
2. To unde 3. To be a 4. To unde	erstand ar erstand ar ible to und erstand ar	nd explain the nd explain the derstand and nd explain the	ne calculation me d explain the bas ne basic regulati	urposes of building ethod of area and sics of the Building ons concerning bu lding agreements,	height. Standard Law. 4 ildina restrictions	4. s in urb			
Rubiic			Ideal Level		Standard Level			Unaccontable Level	
Achieveme	Achievement 1		Be able to pla	Be able to plan buildings in names a cocordance with the objectives building-		derstand and explain the nes and purposes of ding-related regulations and definitions of terms.		Unacceptable Level Can only partially explain the names and purposes of building-related regulations and definitions of terms due to a lack of understanding.	
Achieveme	ent 2			ne calculation of ht and be able to lding plans.	Understand and explain how to calculate area and height.			The method of calculating area and height is not fully understood and only partially explained.	
Achieveme	ent 3		Be able to pla on the fundan Building Stand		Understand and explain basic matters of the Building Standard Law.		in basic g	Can only partially explain basic building code issues due to insufficient understanding of the subject matter.	
Achievement 4			based on the basic regulations regarding building restrictions		Understand and explain basic regulations regarding building restrictions in urban planning areas.		buildina	Basic provisions regarding building restrictions in urban planning areas are poorly understood and only partially explained.	
Achievement 5			building agreements and local pl		Understand and explain district plans, building agreements, and local districts.		in district nents, and	District plans, building agreements, and local districts are only partially explained due to a lack of understanding.	
Assigned	d Depar	tment Ob	jectives						
学習・教育	到達度目標	票 A-2 学習・	教育到達度目標 [)-3 学習・教育到達	度目標 D-4				
Teaching	g Metho	d							
Outline		for building and regulated to learn about Law, Con Seismic F	ural practice involves numerous laws. In this course, students will acquire the knowledge essential and city planning related practice. First, students will gain an overview of building-related laws ations, and then understand the definitions of terms in the Building Standard Law, the contents of stand-alone regulations, and building restrictions in urban planning areas. In addition, students will ut procedures such as application for confirmation, and related laws and regulations (e.g., Architect struction Industry Law, Urban Planning Law, Heart Building Law, Law Concerning the Promotion of eletrofitting of Buildings, Fire Defense Law, etc.).						
Style		This cour The cours	rse is a credit conse is 30 hours of	urse, so a report w f class time + 60 h	vill be required as ours of self-stud	s pre- a ly time.	and post-l	earning.	
Notice		and mast qualificat	ery of this cours ions to sit for th	se will give the stude exam.	n as a requireme dent an advantag	ent for e ge in te	eligibility terms of ye	to sit for the architectural exam, ears of work experience and other	
Characte	eristics o	or Class /	Division in Le	earning					
☐ Active Learning			☑ Aided by ICT		☐ Applicable to Remote Class		ote Class	☐ Instructor Professionally Experienced	
Course F	Plan								
			Гһете			Goals			
	3rd Quarter	1st r	Types and overv egulations	pes and overview of building-related			s enforce	explain the Building Standard nent ordinances, the Architect puilding-related regulations.	
		2nd		pes and overview of building-related julations			Understand and explain how to read law books		
				hitecture and and Building Standa		lards Low Understand and e		explain the definition of terms	
				nitecture and and Building Standa				explain the definition of terms	
				and Building Stan	darde Lovy	Understand and explain how to formu area, building area, floor area ratio, h		explain how to formulate (site	
		6th	Architecture and	and Building Stan		Understand and		explain general construction, prevention regulations, and	
		7th r	midterm examin	idterm examination				Cvacadion systems	

			1							
		8th	Building Restrictions in Urban Planning Areas			Understand and explain roads and sites				
		9th	Building Restrictions in Urban Planning Areas			Understand and explain floor-area ratio, building- to-land ratio, and height restrictions				
		10th	Building Laws and Administration	ling Laws and Regulations and Building inistration			Understand and explain building procedures			
		11th	Building Laws and Regulations			Understand and explain city planning laws				
	4th	12th	Building Laws and Regulations			Understand an	Understand and explain the Architect Act			
	Quarter	13th	Building Laws and	d Regulations		Understand an	Understand and explain the Barrier-Free Law			
		14th	Building Laws and	d Regulations		Understand and explain the Act on the Promotion of Seismic Retrofitting of Buildings				
		15th	Building Laws and Regulations			Understand and explain the Fire Service Law				
		16th								
Evaluati	Evaluation Method and Weight (%)									
		xamination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total		
Subtotal	ϵ	50	40	0	0	0	0	100		
Basic Proficiency)	0	0	0	0	0	0		
Specialized Proficiency		50	40	0	0	0	0	100		
Cross Area Proficiency)	0	0	0	0	0	0		