Akashi College		Year	Year 2022		Course Title	Applied Mathematics B		
Course	Informa	tion	1			•		
Course Co		4428			Course Category	y Specializ	ed / Elective	
Class Forr	Class Format Lecture				Credits	School C	School Credit: 2	
<u> </u>	Department Electrical a Computer		and Computer Engineering Engineering Course		Student Grade	4th		
Term Second Se Textbook and/or			mester Clas		Classes per Wee	ek 4		
Teaching Instructor	Materials	OGASAWAR	DA Himanaiaki					
	Objectiv	100	ATIIIOIIIICIII					
(1) Can m mathema	nake a dec tical formu	luctive inferendale.		·	-		sentences containing	
<u> </u>	erform ba	sic calculations	in vector calcu	ulus, and apply th	em to engineerin	ng and physics of	on a basic level.	
Rubric			Ideal Lovel			Linaccontable Lovel		
			Ideal Level Can accurately make a		Standard Level		Unacceptable Level Cannot make a deductive	
Achievement 1			Idaductive informed based on		Can make a deductive inference based on basic matters.		inference based on basic matters.	
Achievement 2			and fully apply them to		Can perform basic calculations in vector calculus, and apply them to engineering and physics on a basic level.		Cannot perform basic calculations in vector calculus, and apply them to engineering and physics on a basic level.	
Assigne	d Depar	tment Obje	ctives					
Teachin	g Metho	d						
Outline		variable) ba	ised on the cal	n the basics of ve culus and linear a Ilso cover them, i	lgebra learned so	far. This is als	n complex functions of one o applied to engineering and	
Style				lecture style, and			quizzes.	
Notice Charact	eristics	Students ca attitude, etc Students wi	n earn extra po c. in the class.	oints by submitting more of classes were of classes were as a submitter of classes were as a submitter of the control of the c	ig voluntary assig	nments, and lo		
☐ Active Learning			☐ Aided by ICT ☑ Applicable to			Remote Class	☐ Instructor Professionally Experienced	
Course	Dlan							
Course	Piaii	The	eme		1	Goals		
	3rd Quarter	1ct Rev	view and supplementary lesson on vector culations			Can handle the basic matters of vector calculations that's necessary for future learning.		
			Curves				es using parameters.	
2nd Semeste r			rves		(Can handle curves using the arc length parameter.		
		4th Lin	ne integrals			Can calculate and discuss based on the basic matters of line integrals.		
			e integrals adient		t	Can perform calculations and discussions related to Green's theorem. Can calculate and discuss based on the basic matters of the gradient vector.		
		6th Gra	adient		t	Can perform calculations and discussions related to exact differential equations.		
		7th Cor	nservative force faces and surf	es and potential e ace integrals	illergy	Can handle conservative forces and potential energy based on the methods of vector calculus. Can handle surfaces using parameters.		
			urfaces and surface integrals idterm exam			Can perform calculations and discussions related to tangent planes.		
	4th Quarter	9th Sur	urfaces and surface integrals			Can calculate and discuss based on the basic matters of surface integrals.		
		10th De	erivative of vector fields and integral theorem			Can calculate and discuss based on the basic matters of volume integrals.		
		11th De	erivative of vector fields and integral theorer			Can calculate and discuss based on the basic matters of the divergence of a vector field and Gauss's theorem.		
		12th Ove	rivative of vect erview of the tl iable	or fields and integ neory of functions	gral theorem s of a complex	Can calculate and discuss based on the basic matters of the rotation of a vector field and Stokes's theorem. Can calculate and discuss based on the basic matters of the functions of a complex variable.		

		13th	Overview of the theory of functions variable	s of a complex	Can calculate and discuss based on the basic matters of complex integrals.					
		14th	Overview of the theory of functions variable	s of a complex	Can calculate and discuss based on the basic matters of singular points.					
		15th	Application to electromagnetism		Can handle the basic matters of electromagnetism based on the methods of vector calculus.					
		16th	Final exam							
Evaluation Method and Weight (%)										
			Examination	Exercises / Short test		Total				
Subtotal			60	40		100				
Basic Proficiency			60	40		100				
Specialized Proficiency			0	0		0				
Cross Area Proficiency			0 0			0				