Akashi College			Year 2023		Course Title	5	Mathematics III B-1	
Course Information								
Course Code 5306					Course Categor	Category General /		Compulsory
Class Format Lecture				Credits	edits School Cr		edit: 1	
Department Mechanica		Il Engineering		Student Grade 3rd				
Term First Seme			ester		Classes per Week 2			
Textbook Teaching	and/or Materials	新線形代数	I 高遠節夫ほか5名共著(大日本図書)					
Instructor	r	NAGAO Hid	lehito					
Course Objectives								
 (1) Understand the definition and basic properties of linear transformation by matrix and learn its computational techniques. (2) Understand the definition of matrix eigenvalues and eigenvectors, and learn computational techniques for diagonal matrices. 								
Rubric								
			Ideal Level		Standard Level		Unacceptable Level	
Achievement 1			Learn and can use basic computing techniques for matrices.		Understand the basic computing techniques for matrices.		Do not understand the basic computing techniques for matrices.	
Achievement 2			Learn and can advanced comp techniques for vectors.	use some putational matrices and	Understand some advanced computational techniques for matrices and vectors.		Do not understand the more advanced computing techniques for column vectors.	
Assigned Department Objectives								
Teaching Method								
Outline Students will learn the application of matrices as the basis of linear algebra.								
Style Classes will be conducted through lectures and exercises, scheduled assignments and quizzes, etc.								ents and quizzes, etc.
Notice The following items are essential for taking this course. New Linear Algebra I (textbook above) Ch. 2: Notice Matrices, Ch. 3: Matrices Students who miss 1/3 or more of classes will not be eligible for a passing grade.								
Characteristics of Class / Division in Learning								
Active Learning			☑ Aided by ICT ☑ Applicable to		o Remote Cla	SS	 Instructor Professionally Experienced 	
Course Plan								
1st Semeste r		Th	Theme G			Goals		
	1st Quarter	1st Lir	near transforma	ation		Understand the definition of a linear transformation.		
		2nd Lir	near transformation t			transformations.		
		3rd Lir	near transformation t			transformations.		
		4th Lir	near transformation U			Understand and can calculate reverse conversion.		
		5th Lir	near transformation U			Understand and can calculate the linear transformation representing the rotation.		
		6th Lir	near transformation			Understand and can calculate the nature of orthogonal transformations.		
		7th Su	ummary R			Review / development		
		8th Ex	xercise			Exercise	Exercise	
	2nd Quarter	9th Eig	genvalues and their applications			Understand the definitions of eigenvalues and eigenvectors.		
		10th Eig	genvalues and their applications			Can calculate eigenvalues and eigenvectors.		
		11th Eig	igenvalues and their applications			Understand diagonal matrices.		
		12th Eig	igenvalues and their applications			Can calculate for diagonal matrices.		
		13th Eig	igenvalues and their applications			Understand and can calculate the probability of diagonals.		
		14th Eig	Eigenvalues and their applications			Understand and can calculate the diagonals of a symmetric matrix by an orthogonal matrix.		
		15th Ex	Exercise			Exercise		
		16th Ex	5th Exam					
Evaluation Method and Weight (%)								
			Exam	xam Task · Attitud Attendance		• Presentation • Total		Total
Subtotal			30	70		-		100
Basic Proficiency			30	70				100
Specialize	d Proficier	псу	0	0				0
Cross Are	a Proficier	псу	0	0				0