

Toyama College		Year	2022		Course Title	Linear Algebra I	
Course Information							
Course Code		0046		Course Category		General / Elective	
Class Format		Lecture		Credits		School Credit: 1	
Department		Department of Electronics and Computer Engineering		Student Grade		2nd	
Term		First Semester		Classes per Week		2	
Textbook and/or Teaching Materials							
Instructor		Sakurai Hideto,Nagata Osamu					
Course Objectives							
At the completion of this course, students will be able to understand and carry out fundamental calculations on vectors in a real coordinate space of dimension two and three correctly.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Clearly understands, and is able to carry out fundamental calculations on arithmetic operations of vectors.		Ability to understand and carry out fundamental calculations on arithmetic operations of vectors.		Does not display understanding and is unable to carry out fundamental calculations on arithmetic operations of vectors.	
Achievement 2		Clearly understands, and is able to carry out fundamental calculations on vector components of vectors.		Ability to understand and carry out fundamental calculations on vector components of vectors.		Does not display understanding and is unable to carry out fundamental calculations on vector components of vectors.	
Achievement 3		Clearly understands, and is able to carry out fundamental calculations on vector equations.		Ability to understand and carry out fundamental calculations on vector equations.		Does not display understanding and is unable to carry out fundamental calculations on vector equations.	
Assigned Department Objectives							
MCCコア科目 ディプロマポリシー 3							
Teaching Method							
Outline		In this course, students will learn about basic linear algebra, specifically: vectors in a real coordinate space of dimension two and three. And, students will make basics calculations of them.					
Style		Lectures and exercises					
Notice		The recognition of credit requires 50 points or more rating.					
Characteristics of Class / Division in Learning							
<input type="checkbox"/> Active Learning		<input checked="" type="checkbox"/> Aided by ICT		<input checked="" type="checkbox"/> Applicable to Remote Class		<input type="checkbox"/> Instructor Professionally Experienced	
Course Plan							
			Theme		Goals		
1st Semester r	1st Quarter	1st	Guidance		Guidance: Discuss the goals and structure of this course.		
		2nd	Arithmetic operations of vectors		Learn the definition and the basic property of arithmetic operations of vectors.		
		3rd	Vector Components		Learn the definition and the basic property of vector components of vectors.		
		4th	Linear Independence		Learn the definition and the basic property of the Linear Independence of vectors.		
		5th	Inner Product -1-		Learn the definition and the basic property of inner products of two vectors.		
		6th	Inner Product -2-		Learn some applications of the inner products.		
		7th	Position vector		Learn the definition and the basic property of the position vectors.		
		8th	Midterm exam		Midterm examination.		
	2nd Quarter	9th	Vector Equation -1-		Learn the definition and the basic property of vector equations in two dimensional space (in the plane).		
		10th	Vector Equation -2-		Learn the vector equations in two dimensional space (in the plane).		
		11th	Vector in three dimensional space		Learn the definition and the basic property of vectors in three dimensional space (in the space).		
		12th	Vector Equation in three dimensional space -1-		Learn the definition and the basic property of vector equations in three dimensional space (in the space).		
		13th	Vector Equation in three dimensional space -2-		Learn the vector equations in three dimensional space (in the space).		
		14th	Vector Equation in three dimensional space -3-		Learn the vector equations in three dimensional space (in the space).		
		15th	Final exam		Final examination.		
		16th	Summary		Summarize the study content and confirm grades		

Evaluation Method and Weight (%)							
	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	70	0	0	0	0	30	100
Basic Proficiency	70	0	0	0	0	30	100
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0