

Akashi College		Year	2020		Course Title	Design and Drawing I A	
Course Information							
Course Code	0016			Course Category	Specialized / Compulsory		
Class Format	Practical training			Credits	School Credit: 1		
Department	Mechanical Engineering			Student Grade	1st		
Term	First Semester			Classes per Week	2		
Textbook and/or Teaching Materials							
Instructor	SHI Fenghui						
Course Objectives							
(1) Understand the standards of mechanical drawing and can accurately create drawings of mechanical parts, etc. (2) Can design major parts of various machinery and equipment based on their specifications, and create production drawings of them.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Understand the standards of mechanical drawing and can fully accurately create drawings of mechanical parts, etc.		Understand the standards of mechanical drawing and can accurately create production drawings of mechanical parts, etc.		Do not understand the standards of mechanical drawing and cannot accurately create production drawings of mechanical parts, etc.	
Achievement 2		Can fully design major parts of various machinery and equipment based on their specifications, and create production drawings of them.		Can design major parts of various machinery and equipment based on their specifications, and create production drawings of them.		Cannot design major parts of various machinery and equipment based on their specifications, and create production drawings of them.	
Assigned Department Objectives							
学習・教育到達度目標 (D) 学習・教育到達度目標 (F) 学習・教育到達度目標 (G)							
Teaching Method							
Outline		Students will learn the basic knowledge and rules of mechanical design drawings necessary to produce machines that are useful in living, and they will master drawing techniques. This course will be held in a lecture style, and taught by a faculty member who is engaged in mechanical design in a company. He will use his experience to teach students how to represent drawings, including the standards, projections, section and special representation of mechanical design drawings.					
Style		Lectures will be given in line with the textbook, and practice problems will be assigned.					
Notice		We will use the textbook, handouts, etc. to accumulate knowledge and learn about rules. While there are many things to learn, students should practice with patience and perseverance. Assignments must be submitted by the due date. Students who miss 1/4 or more of classes will not be eligible for a passing grade.					
Course Plan							
			Theme		Goals		
1st Semester	1st Quarter	1st	Machine definitions and design drawing, drawing scale, line, character type, and drawing representation		Learn about JIS standards, drawing scale, line and character types, etc.		
		2nd	Top view drawing		Learn top view drawing.		
		3rd	Drawing exercise [1] (how to use drawing tools, lines, top view drawing)		Can draw a hook in the exercise of top view drawing.		
		4th	Projection drawing (1)		Learn third-angle projection and orthographic projection drawing.		
		5th	Projection drawing (2)		Learn orthographic projection drawing.		
		6th	Auxiliary projection drawing		Learn auxiliary projection drawing.		
		7th	Section view drawing (1)		Understand section view drawing.		
		8th	Midterm exam				
	2nd Quarter	9th	Section view drawing (2)		Learn full section view, one-sided section view, and partial section view drawing.		
		10th	Section view drawing (3)		Learn multi-section view drawing.		
		11th	Special projection drawing		Learn special projection drawing.		
		12th	Dimensioning (1)		Learn dimensioning.		
		13th	Dimensioning (2)		Learn dimensioning.		
		14th	Dimensioning (3)		Learn dimensioning.		
		15th	Three-dimensional drawing		Learn three-dimensional drawing using isometric view and cabinet projection.		
		16th	Final exam				
Evaluation Method and Weight (%)							
	Examination		Exercises		Behavior		Total
Subtotal	50		50		0		100
Basic Proficiency	0		0		0		0
Specialized Proficiency	50		50		0		100
Cross Area Proficiency	0		0		0		0