Akashi College	Year	2023	Course Title	Manufacturing Engineering PracticeⅣB

Course Information

Course Code	5428	Course Category	Specialized / Compulsory
Class Format	Practical training	Credits	School Credit: 1
Department	Mechanical Engineering	Student Grade	4th
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	OHMORI Shigetoshi		

Course Objectives

(1) Understand the concepts of CAD and processing, and understand the processes from design to production.
(2) Can prepare procedures and an itinerary based on cost and quality of production.

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1	Fully understand the concepts of CAD and processes from design to production.	Understand the concepts of CAD and processes from design to production.	Cannot understand the concepts of CAD and processes from design to production.
Achievement 2	Can accurately prepare procedures and an itinerary that takes into account the cost and quality of production.	Can prepare procedures and an itinerary based on cost and quality of production.	Cannot prepare procedures and an itinerary based on cost and quality of production.

Assigned Department Objectives

Teaching Method

Outline	As an applied practice of the exercises learned during years 1 to 3, students will develop the ability to select production methods to perform various tasks efficiently, and will also strive to develop production management capabilities, problem awareness, and resolution skills.
Style	Students will split into six groups and carry out different assignments in turn. In addition, we will go on a factory tour to deepen knowledge of production methods.
Notice	Students must be aware of problems, actively think, and cultivate the ability to solve them correctly in order to develop the ability to produce "things" as an engineer. 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 Remote Class	☐ Instructor Professionally Experienced

Course Plan

			Theme	Goals
2nd Semester	3rd Quarter	1st	Production comprehensive exercise (processing and evaluation) I-1	Can perform work analysis such as factors that inhibit processing efficiency (waste) through exercises,
		2nd	Production comprehensive exercise (processing and evaluation) I-2	Can perform work analysis such as factors that inhibit processing efficiency (waste) through exercises,
		3rd	Production comprehensive exercise (processing and evaluation) II-1	Can analyze and extract problems based on the exercise data.
		4th	Production comprehensive exercise (processing and evaluation) II-2	Can analyze and extract problems based on the exercise data.
		5th	Production comprehensive exercise (processing and evaluation) III-1	Can compare the plan and the actual results in terms of cost and process control in order to analyze, and can extract the problems.
		6th	Production comprehensive exercise (processing and evaluation) III-2	Can compare the plan and the actual results in terms of cost and process control in order to analyze, and can extract the problems.
		7th	Production comprehensive exercise (processing and evaluation) result presentation	Present and evaluate results by team.
		8th	Report writing	Accurately summarize the knowledge and techniques acquired in the exercises.
	4th Quarter	9th	3D-CAD application exercise (product making) I-1	Can analyze the prototype to extract the problems.
		10th	3D-CAD application exercise (product making) I-2	Can analyze the prototype to extract the problems.
		11th	3D-CAD application exercise (product making) II-1	Can analyze and evaluate the prototype by extracting the problems before making it into a product.
		12th	3D-CAD application exercise (product making) II-2	Can analyze and evaluate the prototype by extracting the problems before making it into a product.
		13th	3D-CAD application exercise (product making) III-1	Can analyze a product's sales strategies from market research and other sources.
		14th	3D-CAD application exercise (product making) III-1	Can analyze a product's sales strategies from market research and other sources.
		15th	3D-CAD application exercise (product making) result presentation	Present and evaluate the value and features of the product.

		16th	No final exam	

Evaluation Method and Weight (%)

	Examination	Report	the work	Behavior	Total
Subtotal	0	60	20	20	100
Basic Proficiency	0	0	0	0	0
Specialized Proficiency	0	60	20	20	100
Cross Area Proficiency	0	0	0	0	0