

Akashi College		Year	2022	Course Title	Graduation Thesis
Course Information					
Course Code	4516		Course Category	Specialized / Compulsory	
Class Format	Seminar		Credits	School Credit: 6	
Department	Mechanical Engineering		Student Grade	5th	
Term	Year-round		Classes per Week	前期:4 後期:8	
Textbook and/or Teaching Materials					
Instructor	All faculty of the department				
Course Objectives					
(1) Can acquire engineering knowledge and skills independently and continuously. (2) Apply engineering knowledge and skills, and can solve problems and create new technologies. (3) Can logically and creatively examine existing technologies and research content related to research subjects. (4) Can explain research results by documents and presentations, and can discuss them.					
Rubric					
	Ideal Level		Standard Level		Unacceptable Level
Achievement 1	Can fully acquire engineering knowledge and skills independently and continuously.		Can acquire engineering knowledge and skills independently and continuously.		Cannot acquire engineering knowledge and skills independently and continuously.
Achievement 2	Can apply the engineering knowledge learned to one's research topics accurately, and can solve specific problems.		Can apply the engineering knowledge learned to one's research topics, and can solve problems.		Cannot apply the engineering knowledge learned to one's research topics, and cannot solve problems.
Achievement 3	Can fully examine the existing technologies and research content related to research subjects logically and creatively.		Can examine the existing technologies and research content related to research subjects logically and creatively.		Cannot examine the existing technologies and research content related to research subjects logically and creatively.
	Can accurately explain the results of their research by documents and presentations, and can conduct an active discussion.		Can explain and discuss the results of their research by documents and presentations.		Cannot explain and discuss the results of their research by documents and presentations.
Assigned Department Objectives					
Teaching Method					
Outline	The aim of this class is to understand and analyze issues in their research topics based on the results of the learning up to the 4th year and the basic knowledge and skills gained through experiments and exercises, and develop problem-solving skills by taking appropriate approach. Also, students will acquire engineering research techniques through practices by carrying out these processes voluntarily and continuously. Research subjects, unlike exercise questions, do not have answers from the beginning. Learn the fun of studying unknown areas while repeating the trial and error.				
Style	Students will split to each laboratory. In accordance with the guidance of their supervisor, students will carry out document research, experiments and simulations, examinations and discussions. They will present their research results in the interim presentation and graduation research review presentation.				
Notice	This course's content will amount to 270 hours of study in total. These hours the standard self-study time required for analysis, writing a thesis, etc. Students should voluntarily and actively tackle research topics of their own choice, and continue to try to solve problems. The rating is the sum of the following items: (1) Evaluation of research activities by counselor educator: 20 points (2) Evaluation of research papers by chief and sub examiners: 40 points (3) Evaluation of the interim presentation: 10 points (4) Evaluation of the graduation research review presentation: 30 points Students who miss 1/5 or more of classes will not be eligible for a passing grade.				
Characteristics of Class / Division in Learning					
<input type="checkbox"/> Active Learning		<input type="checkbox"/> Aided by ICT		<input type="checkbox"/> Applicable to Remote Class <input type="checkbox"/> Instructor Professionally Experienced	
Course Plan					
			Theme	Goals	
1st Semester	1st Quarter	1st	Course guidance	Understand the outline of the research theme. Understand the precautions for taking the course.	
		2nd	Individual and group research	Can carry out research activities such as document research, experiments and simulations, examinations and discussions under the supervisor.	
		3rd	Individual and group research	Same as above	
		4th	Individual and group research	Same as above	
		5th	Individual and group research	Same as above	
		6th	Individual and group research	Same as above	
		7th	Individual and group research	Same as above	
		8th	Individual and group research	Same as above	
	2nd Quarter	9th	Individual and group research	Same as above	
		10th	Individual and group research	Same as above	
		11th	Individual and group research	Same as above	
		12th	Individual and group research	Same as above	

2nd Semester		13th	Individual and group research	Same as above
		14th	Individual and group research	Same as above
		15th	Individual and group research	Same as above
		16th	No final exam	
	3rd Quarter	1st	Individual and group research	Can carry out research activities such as document research, experiments and simulations, examinations and discussions under the supervisor.
		2nd	Individual and group research	Same as above
		3rd	Interim presentations	Can report on the results of research so far in the form of poster presentations, and can answer questions appropriately.
		4th	Individual and group research	Can carry out research activities such as literature research, experiments and simulations, examinations and discussions under the counselor educator.
		5th	Individual and group research	Same as above
		6th	Individual and group research	Same as above
		7th	Individual and group research	Same as above
		8th	Individual and group research	Same as above
	4th Quarter	9th	Individual and group research	Same as above
		10th	Individual and group research	Same as above
		11th	Individual and group research	Same as above
		12th	Individual and group research	Same as above
		13th	Paper submission	Can summarize the research results and submit research papers.
		14th	Review of papers and submit summary of presentations	Can answer questions from the chief and sub examiners about contents of the research papers. Can prepare and submit an outline for the graduation research review presentation.
		15th	Graduation research review presentation	Can report on the results of research so far by oral presentations using slides, and can answer questions appropriately.
		16th	No final exam	

Evaluation Method and Weight (%)

	Research activities	Research treatise	Interim presentation	Graduation research examination presentation	Total
Subtotal	20	40	10	30	100
Basic Proficiency	0	0	0	0	0
Specialized Proficiency	20	40	10	30	100
Cross Area Proficiency	0	0	0	0	0