

Akashi College		Year	2022		Course Title	Research Studies	
Course Information							
Course Code		4030		Course Category		Specialized / Compulsory	
Class Format		Seminar		Credits		School Credit: 8	
Department		Mechanical and Electronic System Engineering		Student Grade		Adv. 2nd	
Term		Year-round		Classes per Week		8	
Textbook and/or Teaching Materials							
Instructor							
Course Objectives							
(1) Can integrate and deepen expertise, and examine it theoretically, systematically, practically, and creatively from a wide perspective toward solving problems.							
(2) Can engage in learning and research independently and continuously.							
(3) Can write technical documents in English by creating an English abstract of the annual research report.							
(4) Can improve presentation skills by giving one at the research review presentation.							
Rubric							
		Ideal Level		Standard Level		Unacceptable Level	
Achievement 1		Can integrate and deepen expertise, and examine and apply it theoretically, systematically, practically, and creatively from a wide perspective toward solving problems.		Can integrate and deepen expertise, and examine it theoretically, systematically, practically, and creatively from a wide perspective toward solving problems.		Cannot integrate and deepen expertise, and examine it theoretically, systematically, practically, and creatively from a wide perspective toward solving problems..	
Achievement 2		Can actively engage in learning and research independently and continuously.		Can engage in learning and research independently and continuously.		Cannot engage in learning and research independently and continuously.	
Achievement 3		Can write technical documents in English and papers for international conferences by creating an English abstract of the annual research report.		Can write technical documents in English by creating an English abstract of the annual research report.		Cannot write technical documents in English by creating an English abstract of the annual research report.	
		Can improve and apply presentation skills by giving one at the review presentation.		Can improve presentation skills by giving one at the review presentation.		Cannot improve presentation skills by giving one at the review presentation.	
Assigned Department Objectives							
Teaching Method							
Outline		The aim of this course is to develop practical skills for problem solving by integrating engineering knowledge that the students have learned so far and applying it to individual research assignments of their own choice. They will also learn practical techniques for engineering research. 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 be assigned to each laboratory and receive research guidance from the supervisors.					
Notice		This course's content will amount to 360 hours of study in total. These hours include the learning time guaranteed in classes and the standard self-study time required for pre-study / review, and completing assignment reports. Students should proceed with research voluntarily and proactively based on their knowledge they have gained from previous study. Specifically, each research process should be carried out voluntarily and based on self-judgment, as much as possible, to explore the issues given and think about approach methods until they arrive at an answer.					
Characteristics of Class / Division in Learning							
<input checked="" type="checkbox"/> Active Learning		<input 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	1st Quarter	1st	Individual research		Carry out separately under each supervisor's instruction.		
		2nd	Same as above		Same as above		
		3rd	Same as above		Same as above		
		4th	Same as above		Same as above		
		5th	Same as above		Same as above		
		6th	Same as above		Same as above		
		7th	Same as above		Same as above		
		8th	Same as above		Same as above		
	2nd Quarter	9th	Same as above		Same as above		
		10th	Same as above		Same as above		
		11th	Same as above		Same as above		
		12th	Same as above		Same as above		
		13th	Same as above		Same as above		
		14th	Same as above		Same as above		
		15th	Same as above		Same as above		

		16th	No final exam	
2nd Semester	3rd Quarter	1st	Same as above	Same as above
		2nd	Same as above	Same as above
		3rd	Same as above	Same as above
		4th	Same as above	Same as above
		5th	Same as above	Same as above
		6th	Same as above	Same as above
		7th	Same as above	Same as above
		8th	Same as above	Same as above
	4th Quarter	9th	Same as above	Same as above
		10th	Same as above	Same as above
		11th	Same as above	Same as above
		12th	Same as above	Same as above
		13th	Same as above	Same as above
		14th	Same as above	Same as above
		15th	Review presentation	Can present one's research results and answer questions, etc.
		16th	No final exam	

#### Evaluation Method and Weight (%)

	Research paper	Research activities	Annual research report	Research publication	Total
Subtotal	40	20	20	20	100
Basic Proficiency	0	0	0	0	0
Specialized Proficiency	40	20	20	20	100
Cross Area Proficiency	0	0	0	0	0