<u></u>	Anan College		Year 2024		Course Title	Fundamental Experiments n Materials Chemistry 2			
Course	Informat	ion					<u>,</u>		
Course Co	ode	1412T21			Course Category	/ Specialize	ed / Compulsory		
Class Forr	mat	Experimen	nt / Practical training		Credits	School Cı	redit: 2		
Departme	ent	Course of	Chemical Engineering		Student Grade	2nd			
Term		Second Se	mester		Classes per Wee	k 後期:4			
Textbook Teaching		Handout (F	undamental E	xperiments in Mate	erials Chemistry 1	y 1), Fundamentals of Chemistry (Daiichi Gakushu			
Instructor		1 1	nistry (Daiichi (Yuuki,Otani Ta						
	Objective		raaki,otaiii ra	Rusiii					
1. The stu 2. The stu and mixin 3. The stu	udents will udents will ng of reager	learn how to use experiments, adjustme	ent of reaction	ts using experimer to synthesize orga conditions, post-re entify) products of	eaction treatment	:, isolation and i	erimental apparatus, weighing ourification of products).		
Rubric			Ideal Level		Ctandard Lovel		Minimum Lovel		
					Standard Level The student will prepare a		Minimum Level		
Objective	1		logical and appropriate report		logical report us experimental da	ing the	The student will prepare a report using the experimental data.		
Objective 2			The student w perform synth on organic cor	thetic experiments synthetic experime		ments on	on organic compounds with instructions.		
Objective	3		The students will adequately identify the products of organic compounds. The students will adequately identify the products or organic products.			ll identify the anic compounds	The students identify the products of organic compound with instructions.		
Assigne	d Depart	ment Obje	•						
			放育到達度目標[D-4					
	ng Method								
		To learn basic organic chemistry experimental operations (assembly of experimental apparatus, weighing and mixing of reagents, adjustment of reaction conditions, post-treatment of reactions, isolation, and purification of products) and methods to check products by performing typical organic chemistry reactions. Understand the meaning of experimental manipulations and reaction mechanisms, and be able to prepare logical reports of experimental results.							
		Experiments are the foundation of chemistry, and mastery of basic techniques is essential. Students wi consider the purpose of the experiment, learn experimental methods and concepts in the preliminary stand then confirm them in the experiment to experience and deepen their understanding of the laws of chemistry. After the experiments, students analyze the experimental data obtained through accurate measurements and compile them into a report. If this report writing phase is considered a review, the students will learn the experiment in depth by repeating the chemistry experiment's preparation, exper and review phases. Students must complete the experimental plan in the experimental notebook before experiment begins. At the end of the experiment, students must submit the notebook and report the reand experimental data to the instructor in charge to complete this experiment.							
Style		consider the and then consider the chemistry. The measurem students wand review experimen	ne purpose of to confirm them in After the expense and composite and the expenses. Student begins. At the begins. At the	he experiment, lean the experiment to the experiments, students bile them into a repperiment in depth must complete end of the experi	irn experimental in experience and analyze the experience. If this report by repeating the experiments ment, students in	methods and co deepen their ur rimental data o writing phase i chemistry expe al plan in the ex nust submit the	ncepts in the preliminary study, derstanding of the laws of btained through accurate s considered a review, the riment's preparation, experimer perimental notebook before the notebook and report the results		
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		8th	Separa (2)	ation and purificatio	n of organic compo	Extraction is performed using a separatory funnel.			
	4th Quarter	9th	Synthesis of acetanilide (1)				Synthesize amide.		
		10th	Synthe	esis of acetanilide (2	2)	IR, NMR, and melting point measurements are performed to identify acetanilide.			
		11th	Report	coaching and lectu	res				
		12th	Interfacial polycondensation reaction				Synthesize 66 nylon.		
		13th	Synthesis of azo dyes (1)				Synthesize azo compound by azo coupling.		
		14th	Synthe	esis of azo dyes (2)		Identify compounds by TLC.			
		15th	Instrur notes,	ment Check, examinand summary of ex	nation, submission operiments				
		16th	Prelimi	inary Experiment D	ay/Instrument Che				
Evaluati	ion Metl	hod and	Weigh [*]	t (%)					
				Quiz	Portfolio	Prese	entation and ude	Other	Total
Subtotal		0		0	0	0		100	100
Basic Proficiency		0		0	0	0		60	60
Specialized Proficiency		0		0	0	0		40	40
Cross Area Proficiency		0		0	0	0		0	0