Oyama College	Year	2022	Course Title	Building Material Science

Course Information

Course Code	0041	Course Category	Specialized / Compulsory
Class Format	Lecture	Credits	Academic Credit: 2
Department	Department of Architecture	Student Grade	3rd
Term	Second Semester	Classes per Week	2
Textbook and/or Teaching Materials			
Instructor	FUMINO Hikaru		

Course Objectives

Rubric

	Ideal Level	Standard Level	Unacceptable Level
Achievement 1			
Achievement 2			
Achievement 3			

Assigned Department Objectives

学習・教育到達度目標 ②

Teaching Method

Outline	
Style	
Notice	

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	What are Construction Materials-JIS, JASS, Structural Materials, Finishing Materials	What are Building Materials?
		2nd	Cement - hydration reaction, Portland cement, mixed cement	Understanding Cement
		3rd	Materials for Concrete (1) - Fine Aggregate, Coarse Aggregate	Understanding the Constituent Materials of Concrete
		4th	Materials for Concrete (2) - Coarse Aggregates, Mixture Materials	Understanding the Constituent Materials of Concrete
		5th	Properties of Fresh Concrete (1) - Slump, Air Content	Understanding the Properties of Concrete
		6th	Properties of Fresh Concrete (2) - Bleeding	Understanding the Properties of Concrete
		7th	Concrete Preparation - Water Cement Ratio, Preparation Design	Understanding the Properties of Concrete
		8th	Mid-term examination	
	4th Quarter	9th	Properties of hardened concrete (1) - Curing, compressive strength	Understanding the Properties of Concrete
		10th	Properties of hardened concrete (2) - tensile strength, flexural strength, Young's modulus	Understanding the Properties of Concrete
		11th	Concrete durability - freezing resistance, neutralization	Understanding the Properties of Concrete
		12th	Metallic materials (1) - Steel shapes, steel bars for concrete	Understanding Metallic Materials
		13th	Metallic materials (2) - nonferrous metals, alloy steels	Understanding Metallic Materials
		14th	Wood materials (1) - softwood, fiber saturation point, strength	Understanding Wooden Materials
		15th	Wood materials (2) - allowable stress, durability	Understanding Wooden Materials
		16th	Final examination	

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	0	0	0	0	0	0	0
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	0	0	0