



HANYANG UNIVERSITY

Hanyang International Summer School

Faculty Information	Name	Hongyun So				
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	Home University	Hanyang University				
	Department	Mechanical Engineering				
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Course Information	Class No.	18096	Course Code	COE3052	Credits	3
	Course Name	Engineering Mathematics 2				
	Lecture Schedule	Mon-Thu / 13:00~16:00				
	Course Description	In this class, engineering mathematics including complex numbers, conformal mapping, complex integration, linear system of equations, and Gauss elimination will be introduced for students in engineering fields.				
	Course Objective	As an engineer, this course provides the basic concept of complex mathematics as a basic mathematical knowledge to know. In addition, it systematically guides complex integration to help students complete major subjects and cultivate mathematical knowledge and scientific thinking skills.				
	Prerequisite	Engineering Mathematics 1				
	Materials/Textbooks	Advanced Engineering Mathematics / Erwin Kreyszig /John Wiley & Sons				
Evaluation	Attendance	10%	Quiz	10%		
	Assignment	%	Mid-term Exam	40%		
	Presentation	%	Final Exam	40%		
	Group Project	%	Participation	%		
	Etc.	Evaluation Item			Ratio	
Daily Lecture Plan	Week 1	Day 1	Opening Ceremony			
		Day 2	Linear Algebra: Matrices			
		Day 3	Linear Algebra: Vectors			
		Day 4	Linear Algebra: Determinants			
	Week 2	Day 1	Eigenvalue problems			
		Day 2	Eigenvector problems			
		Day 3	Eigenbases			



		Day 4	Diagonalization
	Week 3	Day 1	Midterm
		Day 2	Vector Differential Calculus
		Day 3	Inner product
		Day 4	Vector product
	Week 4	Day 1	Vector and scalar functions
		Day 2	Gradient of a scalar field
		Day 3	Divergence of vector field
		Day 4	Final