



HANYANG UNIVERSITY

Hanyang International Summer School

Faculty Information	Name	Yang Shen					
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	Home University	Hanyang University					
	Department	College of Economics and Finance					
	Homepage						
Course Information	Class No.	18094	Course Code	GEN2052	Credits	3	
	Course Name	Calculus 1					
	Lecture Schedule	Mon-Thu / 9:00~12:00					
	Course Description	This course covers topics of differential and integral calculus including functions and limits, differentiation, definite and indefinite integrals, and applications of derivatives and integrals.					
	Course Objective	<ol style="list-style-type: none"> 1. Introduce the fundamental concepts and properties of single variable calculus; 2. Explore the theorems and applications of differentiation and integration; 3. Provide students with the mathematical tools necessary for more advanced courses. 					
	Prerequisite	-					
	Materials/Textbooks	<i>Single Variable Calculus</i> , Ninth edition, by James Stewart					
Evaluation	Attendance	20%	Quiz	%			
	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	Course introduction; algebra review; functions				
		Day 3	The limit of a function				
		Day 4	Calculating limits using the limit laws				
	Week 2	Day 1	Derivatives and rates of change				
		Day 2	The derivative as a function				



		Day 3	Differentiation formulas and the chain rule
		Day 4	Implicit differentiation; Midterm Q&A
	Week 3	Day 1	Midterm exam; linear approximation and differentials
		Day 2	Applications of differentiation I
		Day 3	Applications of differentiation II
		Day 4	The definite integral
	Week 4	Day 1	The fundamental theorem of calculus
		Day 2	Indefinite integrals
		Day 3	Applications of integration
		Day 4	Final Q&A; Final exam