



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.	18030	Course Code	GEN2052	Credits	3	
	Course Name	Calculus 1					
	Lecture Schedule	Monday-Saturday / 1300-16:00					
	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	Day 1	Course introduction; algebra review; functions					
	Day 2	The limit of a function					
	Day 3	Calculating limits using the limit laws					
	Day 4	Derivatives and rates of change					
	Day 5	The derivative as a function					
	Day 6	Differentiation formulas and the chain rule					



	Day 7	Implicit differentiation; Midterm Q&A
	Day 8	Midterm exam; linear approximation and differentials
	Day 9	Applications of differentiation I
	Day 10	Applications of differentiation II
	Day 11	The definite integral
	Day 12	The fundamental theorem of calculus
	Day 13	Indefinite integrals
	Day 14	Applications of integration
	Day 15	Final Q&A; Final exam