



# 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.		TBA	Course Code	GEN2052	Credits	3
	Course Name		Calculus 1				
	Lecture Schedule		Tue - Fri / 9:00 AM - 12:00 PM				
	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		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		Single Variable Calculus, 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	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				
	Week 2	Day 1	The derivative as a function				
		Day 2	Differentiation formulas and the chain rule				



		Day 3	Implicit differentiation; Midterm Q&A
		Day 4	Midterm exam; linear approximation and differentials
	<b>Week 3</b>	Day 1	Applications of differentiation I
		Day 2	Applications of differentiation II
		Day 3	The definite integral
		Day 4	The fundamental theorem of calculus
	<b>Week 4</b>	Day 1	Indefinite integrals
		Day 2	Applications of integration
		Day 3	Final Q&A; Final exam
		Day 4	Graduation (NO class)