

章節	週次	課程進度
1. Functions and Models	第一週 9/17、9/19	[1.5] Exponential Functions
		[1.6] Inverse Functions and Logarithms
2. Limits and Derivatives	第二週 9/24、9/26	[2.1] The Tangent and Velocity Problems
		[2.2] The Limit of a Function
		[2.3] Calculating Limits Using the Limit Laws
		[2.4] The Precise Definition of a Limit
	第三週 10/1、10/3	[2.5] Continuity
		[2.6] Limits at Infinity; Horizontal Asymptotes
3. Differentiation Rules	第四週 10/8、10/10	[2.7] Derivatives and Rates of Change
		[2.8] The Derivative as a Function
	第五週 10/15、10/17	[3.1] Derivatives of Polynomials and Exponential Functions
		[3.2] The Product and Quotient Rules
		[3.3] Derivatives of Trigonometric Functions
		[3.4] The Chain Rule
	第六週 10/22、10/24	10/10(五)國慶紀念日放假一天
		[3.5] Implicit Differentiation
		[3.6] Derivatives of Logarithmic Functions
		[3.7] Rates of Change in the Natural and Social Sciences (※)
[3.8] Exponential Growth and Decay		
[3.9] Related Rates		
4. Applications of Differentiation	第七週 10/29、10/31	[3.10] Linear Approximations and Differentials
		[3.11] Hyperbolic Functions
	第八週 11/5、11/7	[4.1] Maximum and Minimum Values
		緩衝時間
		[4.2] The Mean Value Theorem
		[4.3] How Derivatives Affect the Shape of a Graph
	第九週 11/12、11/14	[4.4] Indeterminate Forms and L'Hospital's Rule
		[4.5] Summary of Curve Sketching
[4.6] Graphing with Calculus and Calculators (※)		
[4.7] Optimization Problems		
[4.8] Newton's Method (※)		
[4.9] Antiderivatives		
第十週	緩衝時間	
期中考 11/8(六) 13:30~16:00 考試範圍 1.5~4.9 (英文命題)		
5. Integrals	第九週 11/12、11/14	[5.1] Areas and Distances
		[5.2] The Definite Integral
		[5.3] The Fundamental Theorem of Calculus
		[5.4] Indefinite Integrals and the Net Change Theorem
	第十週	[5.5] The Substitution Rule

6. Applications of Integration	11/19、11/21	[6.1] Areas Between Curves
		[6.2] Volumes
		[6.3] Volumes by Cylindrical Shells
第十一週 11/26、11/28		[6.4] Work (※)
		[6.5] Average Value of a Function
7. Techniques of Integration	第十二週 12/3、12/5	[7.1] Integration by Parts
		[7.2] Trigonometric Integrals
	第十三週 12/10、12/12	[7.3] Trigonometric Substitution
		[7.4] Integration of Rational Functions by Partial Fractions
		[7.5] Strategy for Integration
8. Further Applications of Integration	第十四週 12/17、12/19	[7.7] Approximate Integration
		[7.8] Improper Integrals
	第十五週 12/24、12/26	[8.1] Arc Length
		緩衝時間
		[8.2] Area of a Surface of Revolution
9. Differential Equations	第十六週 12/31、1/2	[8.3] Applications to Physics and Engineering
		[8.4] Applications to Economics and Biology (※)
		[8.5] Probability (※)
		[9.1] Modeling with Differential Equations
10. Parametric Equations and Polar Coordinates	第十七週 1/7、1/9	[9.3] Separable Equations
		[9.4] Models for Population Growth
		[9.5] Linear Equations
		[10.1] Curves Defined by Parametric Equations
		緩衝時間
		[10.2] Calculus with Parametric Curves
		[10.3] Polar Coordinates
		[10.4] Areas and Lengths in Polar Coordinates
		[10.6] Conic Sections in Polar Coordinates
		緩衝時間
期末考 1/10(六) 13:30~16:00 考試範圍 5.1~10.6 (英文命題)		