

1. Functions and models	第一週 9/13, 9/15	1.4	Exponential Functions	
		1.5	Inverse Functions and Logarithms	
		2.1	The Tangent and Velocity Problems	
		2.2	The Limit of a Function	
2. Limits and derivatives	第二週 9/20, 9/22	2.3	Calculating Limits Using the Limit Laws	
		2.4	The Precise Definition of a Limit	
		2.5	Continuity	
		2.6	Limits at Infinity; Horizontal Asymptotes	
3. Differentiation rules	第三週 9/27, 9/29	2.7	Derivatives and Rates of Change	
		2.8	The Derivative as a Function	
		3.1	Derivatives of Polynomials and Exponential Functions	
		3.2	The Product and Quotient Rules	
3. Differentiation rules	第四週 10/4, 10/6	10/4 中秋節放假		
		3.3	Derivatives of Trigonometric Functions	
		3.4	The Chain Rule	
	第五週 10/11, 10/13	3.5	Implicit Differentiation	
		3.6	Derivatives of Logarithmic Functions	
		3.8	Exponential Growth and Decay (*)	
4. Applications of differentiation	第六週 10/18, 10/20	3.9	Related Rates	
		3.10	Linear Approximations and Differentials	
		3.11	Hyperbolic Functions	
4. Applications of differentiation	第七週 10/25, 10/27	4.1	Maximum and Minimum Values	
		4.2	The Mean Value Theorem	
	第八週 11/1, 11/3	4.3	How Derivatives Affect the Shape of a Graph	
		4.4	Indeterminate Forms and l'Hospital's Rule	
			4.5	Summary of Curve Sketching
			4.7	Optimization Problems
		4.9	Antiderivatives	
緩衝時間				
期中考 11/4(六) 09:00~11:30 考試範圍 1.4~4.9(英文命題)				
5. Integrals	第九週 11/8, 11/10	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	
		5.5	The Substitution Rule	
6. Applications of integration	第十週 11/15, 11/17	11/15 校慶停課		
		6.1	Areas Between Curves	
		6.2	Volume	
7. Techniques of integration	第十一週 11/22, 11/24	6.3	Volumes by Cylindrical Shells	
		6.5	Average Value of a Function	
		7.1	Integration by Parts	
		7.2	Trigonometric Integrals	
8. Further applications of integration	第十二週 11/29, 12/1	7.3	Trigonometric Substitution	
		7.4	Integration of Rational Functions by Partial Fractions	
		7.5	Strategy for Integration	
8. Further applications of integration	第十三週 12/6, 12/8	7.8	Improper Integrals	
			Laplace Transform	
10. Parametric equations and polar coordinates	第十四週 12/13, 12/15		Laplace Transform	
		8.1	Arc Length	
		10.1	Curves Defined by Parametric Equations	
9. Differential equations	第十五週 12/20, 12/22	10.2	Calculus with Parametric Curves	
		10.3	Polar Coordinates	
		10.4	Areas and Lengths in Polar Coordinates	
17. Second-order differential equations	第十六週 12/27, 12/29	9.1	Modeling with Differential Equations	
		9.3	Separable Equations	
		9.4	Models for Population Growth (*)	
17. Second-order differential equations	第十七週 1/3, 1/5	9.5	Linear Equations	
		17.1	Second-Order Linear Equations	
		17.2	Nonhomogeneous Linear Equations	
緩衝時間				
期末考 1/6(六) 09:00~11:30 考試範圍 5.1~10.6+17.1~17.2(英文命題)				

1. Functions and models	第一週 9/13, 9/15	1.4	Exponential Functions
		1.5	Inverse Functions and Logarithms
		2.1	The Tangent and Velocity Problems
		2.2	The Limit of a Function
2. Limits and derivatives	第二週 9/20, 9/22	2.3	Calculating Limits Using the Limit Laws
		2.4	The Precise Definition of a Limit
		2.5	Continuity
		2.6	Limits at Infinity; Horizontal Asymptotes
	第三週 9/27, 9/29	2.7	Derivatives and Rates of Change
		2.8	The Derivative as a Function
		3.1	Derivatives of Polynomials and Exponential Functions
		3.2	The Product and Quotient Rules
3. Differentiation rules	第四週 10/4, 10/6	10/4 中秋節放假	
		3.3	Derivatives of Trigonometric Functions
		3.4	The Chain Rule
	第五週 10/11, 10/13	3.5	Implicit Differentiation
		3.6	Derivatives of Logarithmic Functions
		3.8	Exponential Growth and Decay (*)
第六週 10/18, 10/20	3.9	Related Rates	
	3.10	Linear Approximations and Differentials	
	3.11	Hyperbolic Functions (*)	
4. Applications of differentiation	第七週 10/25, 10/27	4.1	Maximum and Minimum Values
		4.2	The Mean Value Theorem
	第八週 11/1, 11/3	4.3	How Derivatives Affect the Shape of a Graph
		4.4	Indeterminate Forms and l'Hospital's Rule
		4.5	Summary of Curve Sketching
			4.7
		4.9	Antiderivatives
		緩衝時間	
期中考 11/4(六) 09:00~11:30 考試範圍 1.4~4.9(英文命題)			
5. Integrals	第九週 11/8, 11/10	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
		5.5	The Substitution Rule
6. Applications of integration	第十週 11/15, 11/17	11/15 校慶停課	
		6.1	Areas Between Curves
		6.2	Volume
7. Techniques of integration	第十一週 11/22, 11/24	6.3	Volumes by Cylindrical Shells
		6.5	Average Value of a Function
		7.1	Integration by Parts
	第十二週 11/29, 12/1	7.2	Trigonometric Integrals
7.3		Trigonometric Substitution	
8. Further applications of integration	第十三週 12/6, 12/8	7.4	Integration of Rational Functions by Partial Fractions
		7.5	Strategy for Integration
		7.8	Improper Integrals
		8.1	Arc Length
10. Parametric equations and polar coordinates	第十四週 12/13, 12/15	8.2	Area of a Surface of Revolution
		10.1	Curves Defined by Parametric Equations
		10.2	Calculus with Parametric Curves
9. Differential equations	第十五週 12/20, 12/22	10.3	Polar Coordinates
		10.4	Areas and Lengths in Polar Coordinates
	第十六週 12/27, 12/29	9.1	Modeling with Differential Equations
		9.3	Separable Equations
17. Second-order differential equations	第十七週 1/3, 1/5	9.4	Models for Population Growth
		9.5	Linear Equations
		17.1	Second-Order Linear Equations (*)
		17.2	Nonhomogeneous Linear Equations (*)
		緩衝時間	
期末考 1/6(六) 09:00~11:30 考試範圍 5.1~10.6(英文命題)			

1. Functions and models	第一週 9/13, 9/15	1.4	Exponential Functions
		1.5	Inverse Functions and Logarithms
		2.1	The Tangent and Velocity Problems
		2.2	The Limit of a Function
2. Limits and derivatives	第二週 9/20, 9/22	2.3	Calculating Limits Using the Limit Laws
		2.4	The Precise Definition of a Limit
		2.5	Continuity
		2.6	Limits at Infinity; Horizontal Asymptotes
3. Differentiation rules	第三週 9/27, 9/29	2.7	Derivatives and Rates of Change
		2.8	The Derivative as a Function
		3.1	Derivatives of Polynomials and Exponential Functions
		3.2	The Product and Quotient Rules
3. Differentiation rules	第四週 10/4, 10/6	10/4 中秋節放假	
		3.3	Derivatives of Trigonometric Functions
		3.4	The Chain Rule
		3.5	Implicit Differentiation
3. Differentiation rules	第五週 10/11, 10/13	3.6	Derivatives of Logarithmic Functions
		3.8	Exponential Growth and Decay (*)
		3.9	Related Rates
		3.10	Linear Approximations and Differentials
4. Applications of differentiation	第六週 10/18, 10/20	3.11	Hyperbolic Functions (*)
		4.1	Maximum and Minimum Values
		4.2	The Mean Value Theorem
		4.3	How Derivatives Affect the Shape of a Graph
4. Applications of differentiation	第七週 10/25, 10/27	4.4	Indeterminate Forms and l'Hospital's Rule
		4.5	Summary of Curve Sketching
		4.7	Optimization Problems
		4.9	Antiderivatives
4. Applications of differentiation	第八週 11/1, 11/3	緩衝時間	
		期中考 11/4(六) 09:00~11:30 考試範圍 1.4~4.9(英文命題)	
		5.1	Areas and Distances
		5.2	The Definite Integral
5. Integrals	第九週 11/8, 11/10	5.3	The Fundamental Theorem of Calculus
		5.4	Indefinite Integrals and the Net Change Theorem
		5.5	The Substitution Rule
		11/15 校慶停課	
6. Applications of integration	第十週 11/15, 11/17	6.1	Areas Between Curves
		6.2	Volume
		6.3	Volumes by Cylindrical Shells
		6.5	Average Value of a Function
7. Techniques of integration	第十一週 11/22, 11/24	7.1	Integration by Parts
		7.2	Trigonometric Integrals
		7.3	Trigonometric Substitution
		7.4	Integration of Rational Functions by Partial Fractions
7. Techniques of integration	第十二週 11/29, 12/1	7.5	Strategy for Integration
		7.8	Improper Integrals
		8.1	Arc Length
		8.2	Area of a Surface of Revolution
8. Further applications of integration	第十三週 12/6, 12/8		
		9.1	Modeling with Differential Equations
		9.3	Separable Equations
		9.4	Models for Population Growth
9. Differential equations	第十四週 12/13, 12/15		
		9.5	Linear Equations
		10.1	Curves Defined by Parametric Equations
		10.2	Calculus with Parametric Curves
10. Parametric equations and polar coordinates	第十五週 12/20, 12/22	10.3	Polar Coordinates
		10.4	Areas and Lengths in Polar Coordinates
		緩衝時間	
		期末考 1/6(六) 09:00~11:30 考試範圍 5.1~10.6(英文命題)	

11. Infinite sequences and series	第一週 2/28, 3/2	2/28 和平紀念日放假		
		11.1	Sequences	
		11.2	Series	
	第二週 3/7, 3/9	11.3	The Integral Test and Estimates of Sums	
		11.4	The Comparison Tests	
		11.5	Alternating Series	
	第三週 3/14, 3/16	11.6	Absolute Convergence and the Ratio and Root Tests	
		11.7	Strategy for Testing Series	
		11.8	Power Series	
	第四週 3/21, 3/23	11.9	Representations of Functions as Power Series	
		11.10	Taylor and Maclaurin Series	
11.11		Applications of Taylor Polynomials		
12. Vectors and the geometry of space	第五週 3/28, 3/30	12.6	Cylinders and Quadric Surfaces	
13. Vector functions		13.1	Vector Functions and Space Curves	
		13.2	Derivatives and Integrals of Vector Functions	
	3/31 補上課	13.3	Arc Length and Curvature	
第六週 4/4, 4/6	4/4 兒童節放假			
	4/6 調整放假(於3月31日星期六補上班、上課)			
14. Partial derivatives	第七週 4/11, 4/13	14.1	Functions of Several Variables	
		14.2	Limits and Continuity	
		14.3	Partial Derivatives	
	第八週 4/18, 4/20	14.4	Tangent Planes and Linear Approximation	
		14.5	The Chain Rule	
		14.6	Directional Derivatives and the Gradient Vector	
	第九週 4/25, 4/27	14.7	Maximum and Minimum Values	
		14.8	Lagrange Multipliers	
		緩衝時間		
期中考 4/28(六) 09:00~11:30 考試範圍 11.1~14.8(英文命題)				
15. Multiple integrals	第十週 5/2, 5/4	15.1	Double Integrals over Rectangles	
		15.2	Double Integrals over General Regions	
		15.3	Double Integrals in Polar Coordinates	
	第十一週 5/9, 5/11	15.4	Applications of Double Integrals	
		15.5	Surface Area	
		15.6	Triple Integrals	
	第十二週 5/16, 5/18	15.7	Triple Integrals in Cylindrical Coordinates	
		15.8	Triple Integrals in Spherical Coordinates	
		15.9	Change of Variables in Multiple Integrals	
16. Vector calculus	第十三週 5/23, 5/25	16.1	Vector Fields	
		16.2	Line Integrals	
	第十四週 5/30, 6/1	16.3	The Fundamental Theorem for Line Integrals	
		16.4	Green's Theorem	
	第十五週 6/6, 6/8	16.5	Curl and Divergence	
		16.6	Parametric Surfaces and Their Areas	
		16.7	Surface Integrals	
	第十六週 6/13, 6/15	16.8	Stokes' Theorem	
		16.9	The Divergence Theorem	
		16.10	Summary	
第十七週 6/20, 6/22	緩衝時間			
期末考 6/23(六) 09:00~11:30 考試範圍 15.1~16.10(英文命題)				