Stewart, Calculus: Early Transcendentals 第八版

1051 微甲01-02班

1. Functions and models	第一週 9/14, 9/16	1.4	Exponential Functions
		1.5	Inverse Functions and Logarithms
		9/16(五)中秋節調整放假	
2. Limits and derivatives	第二週 9/21, 9/23	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 9/28, 9/30	2.5	Continuity
		2.6	Limits at Infinity; Horizontal Asymptotes
		2.7	Derivatives and Rates of Change
		2.8	The Derivative as a Function
3. Differentiation rules	第四週 10/5, 10/7	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
	第五週 10/12, 10/14	3.5	Implicit Differentiation
		3.6	Derivatives of Logarithmic Functions
		3.8	Exponential Growth and Decay (*)
		3.9	Related Rates
	第六週 10/19, 10/21	3.10	Linear Approximations and Differentials
		3.11	Hyperbolic Functions
4. Applications of differentiation		4.1	Maximum and Minimum Values
		4.2	The Mean Value Theorem
	第七週 10/26, 10/28	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
	第八週 11/2, 11/4	4.7	Optimization Problems
		4.9	Antiderivatives
		緩衝時間	
期中考 11/5(六) 09:00~11:30 考試範圍 1.4~4.9(英文命題)			
5. Integrals	第九週 11/9, 11/11	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
6. Applications of integration	第十週 11/16, 11/18	5.5	The Substitution Rule
		6.1	Areas Between Curves
		6.2	Volume
		6.3	Volumes by Cylindrical Shells
7. Techniques of integration	第十一週 11/23, 11/25	6.5	Average Value of a Function
		7.1	Integration by Parts
		7.2	Trigonometric Integrals
		7.3	Trigonometric Substitution
	第十二週 11/30, 12/2	7.4	Integration of Rational Functions by Partial Fractions
		7.5	Strategy for Integration
8. Further applications of integration	第十三週 12/7, 12/9	7.7	Approximate Integration (*)
		7.8	Improper Integrals
		8.1	Arc Length
			Laplace Transform
10. Parametric equations and polar coordinates	第十四週 12/14, 12/16		Laplace Transform
		10.1	Curves Defined by Parametric Equations
		10.2	Calculus with Parametric Curves
9. Differential equations	第十五週 12/21, 12/23	10.3	Polar Coordinates
		10.4	Areas and Lengths in Polar Coordinates
		9.1	Modeling with Differential Equations
		9.3	Separable Equations
17. Second-order differential equations	第十六週 12/28, 12/30	9.4	Models for Population Growth (*)
		9.5	Linear Equations
		17.1	Second-Order Linear Equations
	第十七週 1/4, 1/6	17.2	Nonhomogeneous Linear Equations
		緩衝時間	
期末考1/7(六) 09:00~11:30 考試範圍 5.1~10.6+17.1~17.2(英文命題)			

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1052 微甲01-02班

11. Infinite sequences and series	第一週 2/22, 2/24	11.1	Sequences
		11.2	Series
		11.3	The Integral Test and Estimates of Sums
		11.4	The Comparison Tests
	第二週 3/1, 3/3	11.5	Alternating Series
		11.6	Absolute Convergence and the Ratio and Root Tests
		11.7	Strategy for Testing Series
		11.8	Power Series
	第三週 3/8, 3/10	11.9	Representations of Functions as Power Series
		11.10	Taylor and Maclaurin Series
	第四週 3/15, 3/17	11.11	Applications of Taylor Polynomials
12. Vectors and the geometry of space		12.6	Cylinders and Quadric Surfaces
13. Vector functions	第五週 3/22, 3/24	13.1	Vector Functions and Space Curves
		13.2	Derivatives and Integrals of Vector Functions
		13.3	Arc Length and Curvature
14. Partial derivatives	第六週 3/29, 3/31	14.1	Functions of Several Variables
		14.2	Limits and Continuity
		14.3	Partial Derivatives
		14.4	Tangent Planes and Linear Approximation
	第七週 4/5, 4/7	4/5(三)溫書假	
		14.5	The Chain Rule
		14.6	Directional Derivatives and the Gradient Vector
	第八週 4/12, 4/14	14.7	Maximum and Minimum Values
		14.8	Lagrange Multipliers
		緩衝時間	
期中考 4/15(六) 09:00~11:30 考試範圍 11.1~14.8(英文命題)			
15. Multiple integrals	第九週 4/19, 4/21	15.1	Double Integrals over Rectangles
		15.2	Double Integrals over General Regions
		15.3	Double Integrals in Polar Coordinates
	第十週 4/26, 4/28	15.4	Applications of Double Integrals
		15.5	Surface Area
		緩衝時間	
	第十一週 5/3, 5/5	15.6	Triple Integrals
		15.7	Triple Integrals in Cylindrical Coordinates
		15.8	Triple Integrals in Spherical Coordinates
	第十二週 5/10, 5/12	15.9	Change of Variables in Multiple Integrals
16. Vector calculus		16.1	Vector Fields
		16.2	Line Integrals
	第十三週 5/17, 5/19	16.3	The Fundamental Theorem for Line Integrals
		16.4	Green''s Theorem
	第十四週 5/24, 5/26	16.5	Curl and Divergence
		16.6	Parametric Surfaces and Their Areas
	第十五週 5/31, 6/2	16.7	Surface Integrals
		16.8	Stokes'' Theorem
	第十六週 6/7, 6/9	16.9	The Divergence Theorem
		16.10	Summary
	第十七週 6/14, 6/16	緩衝時間	
期末考 6/17(六) 09:00~11:30 考試範圍 15.1~16.10(英文命題)			

Stewart, Calculus: Early Transcendentals 第八版

1051 微甲03-04班

1. Functions and models	第一週 9/14, 9/16	1.4	Exponential Functions
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		9/16(五)中秋節調整放假	
2. Limits and derivatives	第二週 9/21, 9/23	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 9/28, 9/30	2.5	Continuity
		2.6	Limits at Infinity; Horizontal Asymptotes
		2.7	Derivatives and Rates of Change
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3. Differentiation rules	第四週 10/5, 10/7	3.1	Derivatives of Polynomials and Exponential Functions
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	第五週 10/12, 10/14	3.5	Implicit Differentiation
		3.6	Derivatives of Logarithmic Functions
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		3.9	Related Rates
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		3.11	Hyperbolic Functions
4. Applications of differentiation		4.1	Maximum and Minimum Values
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		4.5	Summary of Curve Sketching
	第八週 11/2, 11/4	4.7	Optimization Problems
		4.9	Antiderivatives
		緩衝時間	
期中考 11/5(六) 09:00~11:30 考試範圍 1.4~4.9(英文命題)			
5. Integrals	第九週 11/9, 11/11	5.1	Areas and Distances
		5.2	The Definite Integral
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	第十三週 12/7, 12/9	7.7	Approximate Integration (*)
		7.8	Improper Integrals
8. Further applications of integration		8.1	Arc Length
	第十四週 12/14, 12/16	8.2	Area of a Surface of Revolution
		8.3	Applications to Physics and Engineering
10. Parametric equations and polar coordinates		10.1	Curves Defined by Parametric Equations
		10.2	Calculus with Parametric Curves
	第十五週 12/21, 12/23	10.3	Polar Coordinates
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	第十六週 12/28, 12/30	9.4	Models for Population Growth (*)
		9.5	Linear Equations
17. Second-order differential equations		17.1	Second-Order Linear Equations
	第十七週 1/4, 1/6	17.2	Nonhomogeneous Linear Equations
		緩衝時間	
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		緩衝時間	
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		16.4	Green''s Theorem
	第十四週 5/24, 5/26	16.5	Curl and Divergence
		16.6	Parametric Surfaces and Their Areas
	第十五週 5/31, 6/2	16.7	Surface Integrals
		16.8	Stokes'' Theorem
	第十六週 6/7, 6/9	16.9	The Divergence Theorem
		16.10	Summary
	第十七週 6/14, 6/16	緩衝時間	
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