

**MULTI-MEDIA MATERIALS FOR BIOLOGY MAJOR**

The Dolciani Math Center (7th Floor Hunter East) has multi-media materials to support the Biology Major. Bring your ID card to the Learning Center and ask for the lesson by the call number below. If there is more than one number listed, there are several alternatives for the lesson. You may pick and choose which works best for you. Situational CDs and DVDs relate concepts to real-life situations. Tutorial CDs and DVDs present computations related to concepts.

TOPIC	*** DVDS	TUTORIAL DVDs	DVDs	PLATO Available Under:
Nature of Statistical Data		M1		
Stem and Leaf Displays; Frequency Distributions; Graphical Presentations; Summarizing Two Variable Data	H8	D4, I1, M1		
Measures of Central Tendency (Mean, Median, Mode); Fractiles	H8	D4, I1, M1		
Measures of Variation (Range, Standard Deviation, Variance)		D4, I1, M1		
Permutations, Combinations	J25	D4, SB16		Probability: Introductory
Probability (Addition Rule, Multiplication Rules, Conditional Probability, Bayes' Theorem)	J26	D4, L1, L3, L4, SB16		Probability: Introductory
Expectations and Decisions		L5		Probability: Introductory
Probability Distributions	H9			
Binomial Distribution		L5, SB17		
Normal Distribution		I2, M1, SB4		
Sampling Distributions	H9, H10	I5, M2, SB18		
Estimation of Means		I5, M2		
Estimation of Proportions		M2, SB23		
Tests of Means (single populations)		I5, M2, SB20, SB21		
Test of Means (2 populations)		M3, SB22		
Tests of Proportions		M3, SB23		
Goodness of Fit, Tests of Independence, Tests of Homogeneity		M3, SB24		
ANOVA		M3		
Method of Least Squares, Regression Analysis		M3, SB8, SB9, SB25		
Multiple Regression		SB10		
Coefficient of Correlation; Correlation Analysis		M3		
The Tangent and Velocity Problems	U-1	T3		
The Limit of a Function	U-1	F1-1, T2		
Calculating Limits Using the Limit Laws	U-1	F1-1, T2		
The Precise Definition of a Limit	U-1	F1-1, T2		
Continuity	U-1	F1-1, T2	C2.5a	
Derivatives and Rates of Change	U-1	F1-1, T3	C2.2	
The Derivative as a Function	U-1	F1-1, T3	C2.3	
Differentiation Formulas	U-1	F1-1, T3	C2.3	
Derivatives of Trigonometric Functions	U-1	F1-3, F1-4	C2.35a, C2.35b, C2.35c	
The Chain Rule	U-1	F1-1, T4	C3.1	
Absolute Convergence; Ratio and Root Tests	U-3	F2-3	C7.2 a, b, c, C7.25 a, b, c	
Strategy for Testing Series	U-3	F2-3		
Power Series	U-3	F2-3	C7.4 a, b, c	
Functions as Power Series	U-3		C7.4 a, b, c	
Taylor and Maclaurin Series	U-3	F2-3	C7.4 a	
The Binomial Series	U-3			
Applications of Taylor Polynomials	U-3	F2-3		

TOPIC	*** DVDS	TUTORIAL DVDs	DVDs	PLATO Available Under:
Implicit Differentiation	U-1	F1-2, T4	C3.2	
Rates of Change in the Natural/Social Sciences	U-1	F1-2, T3		
Related Rates	U-1	F1-2, T4	C3.3, C4.5	
Linear Approximation and Differentials	U-1	F1-2		
Maximum and Minimum Values	U-1	F1-2, T4	C4.1a, C4.2a	
The Mean Value Theorem	U-1	F1-2, T5	C4.1b	
How Derivatives Affect the Shape of a Graph	U-1	F1-2, T5	C4.2b, C4.3	
Limits at Infinity; Horizontal Asymptotes	U-1	F1-1, T5	C4.2d	
Summary of Curve Sketching	U-1	F1-2, T5	C4.2d	
Optimization Problems	U-1	F1-2, T6		
Antiderivatives	U-1	F1-3, T7	C5.1a	
Areas and Distances	U-1	F1-3, T3	C6.1c, C6.1a, C6.1d	
The Definite Integral	U-1	F1-3, T7	C5.1b	
The Fundamental Theorem of Calculus	U-1	F1-3, T8	C5.1b, C6.1a	
Indefinite Integrals and the Total Change Theorem	U-1	F1-3, T7	C6.1a	
The Substitution Rule	U-1	F1-4, T8	C5.5	
Volumes	U-1	F1-4, F2-1	C6.2a, C6.2b, C6.2c	Volume: Rectangular Prisms, Cones, Pyramids, Cylinders, and Spheres
Volumes by Cylindrical Shells	U-1	F2-1	C6.2d	Volume: Rectangular Prisms, Cones, Pyramids, Cylinders, and Spheres
Work	U-1	F2-1	C6.4a, C6.4b	
Inverse Functions	U-1	F1-3, T9		Functions: Translating, Combining, Graphing, Inverse
Exponential Functions	U-1	F1-3, T9		Functions: Exponential and Logarithmic
Logarithmic Functions	U-1	F1-3, T9		Functions: Exponential and Logarithmic
Derivatives of Logarithmic Functions	U-1	F1-3, T9		
Exponential Growth and Decay	U-1	T10		Functions: Exponential and Logarithmic
Inverse Trigonometric Functions	U-1	F1-4, T11		
Indeterminate Forms, L'Hopital's Rule	U-1	F2-2	C7.0	
Integration by Parts	U-2	F1-4	C5.3	
Trigonometric Integrals	U-2	F1-4		
Trigonometric Substitution	U-2	F1-4		
Integration by Partial Fractions	U-2	F1-4		
Strategy for Integration	U-2			
Approximate Integration	U-2	F2-2		
Improper Integrals	U-2	F2-2	C5.6	
Arc Length	U-2	F2-1	C6.3 a, b	
Area of a Surface of Revolution	U-2	F2-1		
Polar Coordinates	U-2	F2-1, F2-2	C8.1	
Areas and Lengths in Polar Coordinates	U-2	F2-1, F2-2	C8.3	
Sequences	U-3	F2-2	C7.1 a, b, c	Patterns and Sequences
Series	U-3	F2-3	C7.1 a, b, c	Patterns and Sequences
The Integral Test; Estimate of Sums	U-3	F2-3	C7.2 a, b, c	
The Comparison Test	U-3	F2-3	C7.2 a, b, c	
Alternating Series	U-3	F2-3	C7.2 a, b, c	Patterns and Sequences