Class 16: **Wednesday October 12**

SUMMARY Review for EXAM 1
CURRENT READING Williamson & Trotter, Section (Chapters 1,2,4,5,1-5.4)

Arithmetic Operations on Vectors

Parametric Equations of Lines and Planes

Geometric Interpretation of Vector Addition, Subtraction, Dot Product

Vector Cross Product

Linear Systems Review, part 1: None, One or Infinite Number of Solutions

Linear Systems Review, part 2: Matrix Multiplication, Addition

Linear Systems Review, part 3: Inverse matrix, Determinant, Gauss-Jordan Elimination

Vector Functions of a Scalar Variable

Visualization of Functions of Several Variables

Partial Derivatives

Parametrization of Surfaces

Neighborhoods, Limit Points, Open Sets, Closed Sets

Limits and Continuity for Functions of Several Variables

The Vector Derivative: The Gradient Function

The Jacobian Matrix

The Tangent Approximation(s)

Multivariable Newton's Method

(YOUR FAVORITE TOPIC:) _____