# Calculus III Project:       #1 Multivariable Differentiation

Select your project team:    (Recommended: 4 students.)     Working Sec: _____

**1.**   Name: _____     Sec: _____

    Email: _____     Phone: _____

**2.**   Name: _____     Sec: _____

    Email: _____     Phone: _____

**3.**   Name: _____     Sec: _____

    Email: _____     Phone: _____

**4.**   Name: _____     Sec: _____

    Email: _____     Phone: _____

Indicate your preference on projects:    (1 for first choice down to 8 for last choice.)

_____    Newton's Method in 2 Dimensions (10.3) requires a Maple program

_____    Gradient Method of Finding Extrema (10.4) requires a Maple program

_____    Seeing a Blimp (10.5)

_____    The Trash Dumpster (10.6)

_____    Locating an Apartment (10.7)

_____    Minimal Rectangles and Triangles (Stewart p. 792 \#5 + similarly w. triangles)

_____    Exact Gradient Method (Stewart p. 793 \#11 or p. 866 \#2) requires a Maple program

_____    Minimal Ellipse Containing a Circle (Stewart p. 793 \#13))

# Calculus III Project:     #2 Multivariable Integration

Select your project team:   (Recommended: 4 students.)     Working Sec: _____

**1.**   Name: _____     Sec: _____

         Email: _____     Phone: _____

**2.**   Name: _____     Sec: _____

         Email: _____     Phone: _____

**3.**   Name: _____     Sec: _____

         Email: _____     Phone: _____

**4.**   Name: _____     Sec: _____

         Email: _____     Phone: _____


Indicate your preference on projects:   (1 for first choice down to 7 for last choice.)

_____     Gauss' Law and Ampere's Law (9.9, 9.10)

_____     Interpretation of Divergence and Curl (9.11, 9.12)

_____     Skimpy Donut (10.8)

_____     Volume Between a Surface and Its Tangent Plane (10.9)

_____     Hypervolume of a Hypersphere (10.10)

_____     Center of Mass of Planet X (10.11)

_____     Steradian Measure (10.12)