# Multivariable Calculus

Math 212 Spring 2006 © 2006 Ron Buckmire

 $Fowler~307~MWF~8:30pm-9:25am\\ http://faculty.oxy.edu/ron/math/212/06/$ 

## Week 5

Wednesday February 22 Class 13:

**Differentiability.** We shall introduce the vector derivative of a scalar function, the gradient function  $\vec{\nabla} f$ .

### Reading:

Williamson & Trotter, (Section 5.2)

### Homework #13:

Williamson & Trotter, page 232: **6**, **7**, 8, 9, 12, **16**, **19**, **20**; Extra Credit page 232: # 21

QUIZ #4 DUE

Friday February 24 Class 14:

The Jacobian Matrix. Introduction of the vector derivative of a vector function.

## Reading:

Williamson & Trotter, (Section 5.4)

 $\underline{\text{Homework } #14:} \text{ (due in } Class 16)$ 

Williamson & Trotter, page 236: # 1, 4, 9; page 243: 3, 4, 8, 17, 18, 23 Extra Credit page 244: 27, 28

#### Sunday February 26: EXAM REVIEW SESSION 6:30-8:30pm

Review Session for Exam 1. We'll try to brainstorm our way through a concept map of the topics we have covered so far and answer any questions related to the (practice) exam.

#### Reading:

Williamson & Trotter, (Chapter 1, 2, 4, 5.1-5.4)