Week 6

Monday October 3 *Class 12*:

Introduction to Limits of Multivariable Functions. We shall be introduced to some of the most important concepts involving point sets: **neighborhood**, **boundary point**, **limit point** and **interior point**.

Reading:

Williamson & Trotter, (Section 5.1)

Homework #5:

Williamson & Trotter, page 224: # 2, 3, 4, 5, 8, 12, 25, 26, 27, 42,
Extra Credit page 225: # 32, 33

Quiz #4 DUE

Wednesday October 5 *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 #5:

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

Friday October 7 *Class 14*:

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

Reading:

Williamson & Trotter, (Section 5.4)

Homework #6:

Williamson & Trotter, page 236: # 1, 4, 9; page 243: 3, 4, 8, 17, 18, 26
Extra Credit page 244: 27, 28

Quiz #5