Mathematics 211
Fall, 2014, Section 4
Wieting

MULTIVARIABLE CALCULUS

Basic Concepts

- (•) Mappings
- (•) Cartesian Space $\mathbf{R}^3$
- (•) Matrices

Differentiation

- (•) The Chain Rule
- (•) Taylor's Theorem
- (•) Rank Theorem

Extreme Value Problems

- (•) Lagrange Multipliers

Curves in $\mathbf{R}^3$

- (•) Velocity/Acceleration/Curvature

Surfaces in $\mathbf{R}^3$

- (•) Curvature

Conformal Maps

- (•) Mercator et al.

Vector Fields

- (•) Differential Equations

Texts

Notes, David Perkinson (online)

Notes, Jerry Shurman (bookstore)

Homework

Weekly: Wednesday $\longrightarrow$ Wednesday

Examination

EndTerm: Take Home/Open Book