Math 312 (Complex Analysis) – Week 4
Spring Term 2004
BUCKMIRE

Monday February 9 *Class 9*:

The Cauchy-Riemann Equations. We shall derive the most famous equations in Complex Analysis, and summarize the connections between differentiability, analyticity and the CREs.
Reading:
Saff & Snider, (Section 2.4)
Homework 4: (**due Friday February 13**)
Saff & Snider, Section 2.4 # 1, 2, 4, 5, 6 **Extra Credit: # 15**

Wednesday February 11 *Class 10*:

Harmonic Functions. All about solutions of one of the fundamental partial differential equations of nature: Laplace's Equation.
Reading:
Saff & Snider, (Section 2.5)
Homework 4: (**due Friday February 13**)
Saff & Snider, Section 2.5 # 1, 2, 5, 6, 10, 12 **Extra Credit: #18, 22**

Friday February 13 *Class 11*:

Application of Complex Variables: Understanding Harmonic Functions and Introduction to Fractals.
Reading:
Saff & Snider, (Section 2.6 and 2.7)
Homework 5: (**due Friday February 20**)
Saff & Snider, Section 2.7 # 5, 10
QUIZ #4