## Linear Systems

Math 214 Spring 2006
(C) 2006 Ron Buckmire

Fowler 307 MWF 2:30pm - 3:25pm
http://faculty.oxy.edu/ron/math/214/06/

## Week 10

Monday April 3 Class 25:

Orthonormality. We will revisit orthogonality, norms and projections and intrudce a class of matrices known as orthornormal.

Reading:
Poole, Section 5.1
Homework \#24: (due in Class 26)
Poole, Section 5.1: 3,4,5,6,8,9,12,13,16,17,30,31. EXTRA CREDIT 28, 33.
Quiz 8 and BONUS QUIZ Due

Wednesday April 5 Class 26:

Orthogonal Complements. We will learn about an incredibly important feature of vectors and orthogonal vector spaces.

Reading:
Poole, Section 5.2
Homework \#25: (due in Class 26)
Poole, Section 5.2: 2,3,4,5,6,7,12,15,16,17,19,20,21. EXTRA CREDIT 29.

Friday April 7 Class 25:

Gram-Schmidt Orthogonalization. We shall learn about the famous Gram-Schmidt process to generate an orthonormal basis for a vector space.

Reading:
Poole, Section 5.3
Homework \#26: (due in Class ${ }^{27}$ )
Poole, Section 5.3 : 1,2,3,4,6,11,13,17. EXTRA CREDIT 18.
QUIZ \#9

