

ECE 580

Optimization by Vector Space Methods

Spring, 2008

About the Midterm

Prof. Sean Meyn, meyn@uiuc.edu

Mon. & Weds., 11-12:30, 106B6 Engg. Hall

It is now official: the midterm exam will be held on **Tuesday eve., March 4, 6:00-7:30.**

Content The exam will cover all of the material up to the lecture of Monday, February 25. So, please come to the exam with a statement of the Hahn Banach Theorem. I won't expect you to know much about this result — it will be developed over the coming weeks.

If you understand the four homework assignments perfectly your performance on the exam will be outstanding. In particular, you should understand the following concepts:

1. Basics of normed linear spaces
2. The Contraction Mapping Theorem and applications
3. Hilbert Spaces, The Projection Theorem, and minimum distance to a convex set
4. Complete orthonormal sequences
5. Elements of duality theory

Practical matters The exam will be held in room 141, [Coordinated Science Laboratory](#).

You may bring one sheet of notes, double-sided. No calculators are permitted.

Office hours on Monday March 3 will be extended slightly, 3:00-5:00 in 144 CSL. I will also hold office hours early Tuesday morning if there is sufficient demand.