Announcements for Midterm #2

When: The midterm will be **Monday, November 19**, as previously announced.

Where: We'll be in a new room: **Public Policy 2250**.

Conditions:

50 minutes long, 50 points

Closed book.

Calculators permitted, except for those that do linear algebra, but the intention is that any arithmetic will be fairly simple.

The format will be like the first midterm.

Coverage:

Lectures from Friday, October 19 (3-F) through Wednesday, November 14 (7-W).

Homework Assignments 4-7 (the last lightly).

All material from handouts through Wednesday, November 14, including any remarks on solutions, plus any more solutions handed out.

Reading from relevant sections of the text, but nothing that has not been mentioned in homework or lectures.

Proofs to know (in addition to homework solutions)

- "Exchange" proof of invariance of dimension
- dim Nullspace T + dim Range T = dim domain T.
- Every linear transformation $F^n \to F^m$ is of the form τ_A.
- T is one-to-one $\Leftrightarrow$ Nullspace $T = \{\mathbf{0}\}$.
- λ is an eigenvalue $\Leftrightarrow$ lambda is a root of the characteristic polynomial (if covered)
- Eigenvectors for distinct eigenvalues are linearly independent (if covered)

Review:

In class as part of lecture on Friday, November 16.