Outline

We will skip partition matrix (Section 1.5) for the moment. Chapter 2 covers the topic of determinant. You don't need to remember the formula on P 102{104. As the author rightly pointed out, it is much easier to calculate determinant using row operations for $n > 3$. We will use di erent approach here.

1. We will de ne the determinant on (upper) triangular matrix (Theorem 2.1.3), elementary matrices (Summary on P 110) and take Theorem 2.1.2, $\det(A^T) = \det(A)$ as fact.

2. Main results: Theorem 2.2.2, 2.2.3.

3. Chapter 3. Vector Space. Now we are cooking!

4. Recall $AX = b$ is consistent if and only if b can be written as linear combination of column vectors of A. Solutions exist? Unique?

5. Let A be a mxn matrix. Null space and span (space).

6. Common structure: Subspace.

Homework (due 020411)

1. §1.4: 15. Chapter 1: Chapter test (P 97{98).

2. §