EE 115A
ASSIGNMENT #3

Due: Thursday, October 27, 2005

Reading:

Sedra and Smith, pp. 270-299.
Skip 4.6.7.

Problems:

Sedra and Smith, 4.49, D4.52, 4.54, D4.60, 4.69 (a,b,c), D4.70, 4.72, 4.75 (Verify results with SPICE), 4.77

Notes:

4.75: $V_A$ is a different way to specify the output resistance of the MOS. Assume the effect of $V_A$ is the same in the small signal model as if an additional output resistance $r_0$ of 100K is connected between the drain and source.
4.77b: Derive $g_m$, but assume $r_0$ can be represented in the small-signal model as an additional 100K resistor placed between the drain and source.