## UNIVERSITY OF CALIFORNIA AT BERKELEY

## College of Engineering Department of Electrical Engineering and Computer Sciences

## EE105 Lab Experiments

## Prelab 9: MOS Characterization and Amplifiers

Name:

Lab Section:

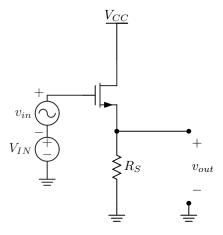


Figure 1: Common drain amplifier

1. Draw the small signal model for the common drain amplifier shown in Figure 1.

2. Derive the output impedance.

3. Derive the voltage gain.

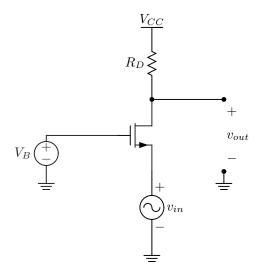


Figure 2: Common gate amplifier

 $4.\,$  Draw the small signal model for the common gate amplifier shown in Figure 2.

5. Derive the output impedance.

6. Derive the voltage gain.