

**CSE 436/536**  
**Digital Integrated Circuits**  
**Assignment 1**  
**Due Date 28/10/2021 23:59**

1. In this assignment you will go through the Spice tutorial and plot every graph inside the tutorial.

The Spice Tutorial is under Files > Class Materials of Teams Class Page.

Take the screenshot of your Spice plots and put them inside a zip file and post that zip file before the due date.

2. Install Magic and SCN5M\_DEEP.12.tech27 on your computer and design an inverter layout using Magic. Put the mag file and picture of your inverter to the zip file.
3. Draw the transistor level schematic for the **oai23** logic cell given below:

$$Z = \overline{(A + B) \cdot (C + D) \cdot (E + F)}$$

Add the screenshot of your schematic to the zip file.

Name your zip file as  
StudentName\_StudentSurname\_StudentId\_Assignment1.zip