

DUE: Friday, November 1

Design a latch that uses the combined version of the basic cell, as developed in class, as a storage element. This latch has two inputs, P and U, in addition to a clk signal which acts as a gate. The output should toggle if P and U are the same, hold if P and U are 01, and set if P and U are 10. Create the following items in your design:

- a. Block diagram
- b. List of inputs and outputs
- c. Function table
- d. Excitation table for the combined form of the basic cell
- e. Truth table
- f. Equations for the inputs to the basic cell
- g. Schematic

Turn In

- **Staple this assignment sheet** to your solutions, which are to be done in accordance with the school of engineering homework guidelines posted on the course web page.