DATE: January 23, 2007  
TO: CENG 244 Students  
FROM: Elaine Linde  
SUBJECT: Laboratory #2 – Logic Circuits

**Preliminary Work:**
(1) Prepare a truth table and two logic circuits to verify Theorem 5a from Table 2-1 of the book (DeMorgan’s Theorem). One logic circuit would be for the left side of the equation. The second logic circuit is for the right side of the equation.
(2) Prepare a truth table and two logic circuits to verify Theorem 5b from Table 2-1 of the book (DeMorgan’s Theorem). One logic circuit would be for the left side of the equation. The second logic circuit is for the right side of the equation.
(3) Prepare a truth table and draw a logic diagram for the Boolean equation $F_2 = AB' + A'C$.

**Experimental Work:**
(1) Connect both logic circuits from Part 1 of the Preliminary Work and verify that they have the same functionality.
(2) Connect both logic circuits from Part 2 of the Preliminary Work and verify that they have the same functionality.
(3) Connect the logic circuit from Part 3 of the Preliminary Work and verify that it generates the same truth table that you determined in the Preliminary Work.

**Conclusion:**
(1) Document your findings.