CME1214 Logic Design
Lab 1

Preliminary Work

- Study Boolean Algebra and DeMorgan Theorems.
- Use Altera Max+Plus II software to implement your designs. Simulate your circuits and verify that they work correctly using the waveform.
- Prepare a preliminary report which should include logic diagrams, waveforms and all other preliminary works.
- The preliminary work and report are expected from each student **individually**.
- Bring the relevant datasheets with you to the lab, **1 per each group**.

Equipments

- Necessary gates for the experiments (*AND – IC 7408, OR - IC 7432, NOT - IC 7414, XOR - IC 7486, NAND - IC 7400* etc.)
- Breadboard, connection cables
- Any other equipments necessary for the experiments

Experiment 1

Construct the truth table and implement the equivalent logic circuit of $\overline{(A \wedge B)} \vee C$

A	B	C	F

Experiment 2

Design *NOR* $\overline{(A \vee B)}$ gate entirely from **NAND and NOT** gates.

Truth Table for **NOT** Gate

A	F
0	1
1	0

Truth Table for **NAND** Gate

A	B	F
0	0	1
0	1	1
1	0	1
1	1	0