CSC346 Switching Theory

- **Instructor**
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  Office hours: Monday and Wednesday from 3:00pm to 4:30pm.

- **Class Website**
  Information about this course can be obtained at Blackboard. It contains a variety of information, including class handouts, labs, and your grades, which will be updated regularly during the semester.

- **Textbook**

- **Course Description**
  Prerequisites: CSC 220.

- **Specific Goals for the Course**
  a. Specific outcomes of instruction:
     1. Understand number systems and codes.
     2. Perform binary logic and arithmetic operations.
     3. Evaluate and simplify logical functions using Boolean algebra.
     4. Analyze and design various combinatorial circuits
     5. Simplify combinatorial circuits using Karnaugh maps.
     6. Understand basic sequential logic components: latch, flip-flop, counter, and register.
     7. Understand finite state machines (FSM) concept.
     8. Analyze and design sequential circuits.
     9. Learn basic components used in the typical computer hardware designs.
  b. The student outcomes in Criterion 3 addressed by the course: (a), (b), (c), (i), (j).

- **Topics to be covered**
  Binary representation of information, Basic logic devices, Boolean Algebra, Karnaugh map simplification, Combinational logic analysis and design, Latches, Flip-flops and registers, Sequential machine analysis and design, Finite-state machine design, Programmable logic.

- **Tentative Grading:**
  - 15% Homework  
    A>90; A- 88,89;
  - 50% Two Midterm Exams  
    B+ 86,87; B 80-85; b-78, 79
  - 30% Final Exam  
    C+76,77; C 70-75; C-68, 69
  - 5% Attendance & participation  
    D 60-67; F<60

- **Other Policies**
  Students are responsible to get any information covered in class including homework assignments, due dates, and test dates. No make-ups on exams unless extraordinary circumstances. There is no extra credit - don't bother asking. Late homework won’t be accepted. Cheating is a serious offense that undermines the integrity of the student and the school. Students caught cheating (including plagiarizing) will receive a zero grade for the respective test or assignment, and will be subject to the school’s progress penalties for cheating.