CS 4/55111 **VLSI Design**

Project #1

Due in class on dates shown below

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1. Do **Lab Exercise 2: Design of a Four-Bit Ripple Carry Adder**, from Chapter 9 in *Workview Office Student Edition*, by R. James Duckworth. Turn in printouts of your design, and the results of the analysis and timing analysis, along with any writeup necessary to explain your analysis.

   This part is due in class on Wednesday 18 February, and counts 5% of your course grade.

2. Do **Lab Exercise 3: Design of a Four-Bit Arithmetic Unit**, from Chapter 10 in *Workview Office Student Edition*, by R. James Duckworth. Turn in printouts of your design, and the results of the analysis, along with some printouts to demonstrate that your design works.

   This part is due in class on Wednesday 25 February, and counts 5% of your course grade.

3. Do either:
   Lab Exercise 7: Design of a Simple Traffic Controller, from Chapter 14,
   Lab Exercise 9: Design of a Sequential Combination Lock, from Chapter 16, or
   Lab Exercise 10: Design of a Vending Machine, from Chapter 17,
   in *Workview Office Student Edition*, by R. James Duckworth,
   or do some equivalent project (clear your project with Prof. Walker in advance).

   Turn in printouts of your design, along with an analysis and some printouts to demonstrate that your design works.

   This part is due in class on Friday 6 March, and counts 10% of your course grade.