

Attention Perfectionists: An Inkscape SVG version of the illustration of the superscalar MIPS implementation used in the final exam problems and their solution for this assignment can be found at <http://www.ece.lsu.edu/ee4720/2016/fe-ss.svg> and <http://www.ece.lsu.edu/ee4720/2016/fe-p1abc-sol.svg>.

Problem 1: Answer Spring 2016 Final Exam Problem 1 a, b, and c, in which a single memory port is connected to the ME stage of a two-way superscalar MIPS implementation. The solution to this problem is available. **Make a decent attempt to solve this problem on your own, without looking at the solution.** Only peek at the solution for hints and use the solution to check your work.

Problem 2: Answer Spring 2016 “Final Exam Problem” 1e, which asks for modifications to a 2-way superscalar MIPS implementation that avoids stalls for certain pairs of load instructions. *Note: Problem 1d was given on the final exam. Problem 1e, which did not appear on the final, is an expanded version of Problem 1d.*