

## **CS/EE 5830/6830 VLSI Architecture**

### **Project information**

You project should be the design, implementation, and measurement of a significant arithmetic circuit. You can propose your own project, or you could choose either the divider or the floating point proposed projects (see the class web site). Other potential projects are circuits for: square root, inverse square root ( $1/\text{root}(n)$ ), transcendental functions, combinations of operations like dot or cross product, matrix operations, iterative approximations, etc. Group sizes for the final project can be one or two.

You should turn in a short (1-2 page) proposal for your project on Tuesday April 12 in class. This should be a description of the circuit you intend to build, who's on your team (if it's a team of two), and what you plan to demonstrate and measure about your circuit.

For the final project report turn in a written report that describes your project along with the actual design directories by Tuesday of finals week (Tuesday, May 3<sup>rd</sup>). You can turn the design directories in with on-line handin (to CAD6), but please turn in a hard copy of the report. The report should describe what your project is, what features you added, what you did to optimize for speed (or power or size), how you tested your unit, and what the test reports showed. You should also report size (number of transistors) and speed for your design. I should be able to tell what you did, why you chose to do things that way, and what your results were by reading the report. That is, don't expect me to dig information out of your design directory. If you think I should see it in order to decide your grade on the project, put it in the report! I'll look at your design directories as part of my evaluation, but I should be able to tell what you did, why, and how it turned out by reading the report.