

Lab 6 (21 Oct 2004): CSCI 4330 /5330: Digital Systems Design with VHDL
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We now have designs available for various arithmetic units, such as adders, subtractors, and multipliers. We also have various logical units ready, such as OR, AND, NOT, NAND, NOR, XOR, and NOT gates. In this laboratory work, you need to design an arithmetic and logic unit (ALU), that supports the operations, (i) addition, (ii) subtraction, (iii) multiplication, (iv) OR, (v) AND, (vi) NOT, (vii) NAND, (viii) NOR, (ix) XOR, and (x) NOT. The ALU will take one or two 4-bit input(s) and produce a 4-bit output depending on the type of operation. There should be appropriate control signal to choose from the supported operations.