

## CSci 4554 Assignment 5

Due Sunday, March 5th in my office or electronically.

Problems:

1. **15 points.** Exercises 4.4, 4.6, and 4.7 p. 118. Show all your work.
2. **8 points.** Please show your work to verify an entry in the multiplicative inverses table on p. 99, and then verify the S-box value for that entry (the way we did in class with 7C). The entry you verify is: take your initials, take the corresponding letter numbers modulo 16, and use the first number as the  $x$  and the second one as  $y$ . For instance, my initials are EM,  $E = 4$ ,  $M = 12$ , which is C in hexadecimal, so the entry I would be verifying is 4C.
3. **6 points.** Exercise 4.11 p. 120.