

### Fall 2022 CIS 3362 Homework #4 Grading Criteria

- 1) 20 pts – 8 pts for C0 ½ pt per bit round down  
2 pts for C1 – give 2 pts if correct, 1 pt if more than half bits correct, 0 otherwise  
8 pts for C2 – 2 pts per group of 4, have to get all bits to get 2 pts  
2 pts for C – must be correct to get these points
- 2) 4 pts – 1 pt row, 2 pt col, 1 pt answer
- 3) 8 pts – 1 pt per bit
- 4) 10 pts – 2 pts for saying that all bits don't appear the same number of times  
2 pts – total bits calculation for all rounds  
2 pts – stating number of key bits is 56.  
4 pts – calculating average and showing it's not an integer.
- 5) 15 pts – 1 pt var dec  
2 pts outer loop  
2 pts inner loop  
1 pt initialize mat3[i][j]  
2 pts innermost loop  
1 pt LHS of update  
2 pts +=  
4 pts product getting added, 2 pts each term
- 6) 8 pts – 1 pt per HEX char, answer has to be perfectly correct to get the point for each hex char (if in binary)
- 7) 20 pts - 1 pt (01 x B7)  
6 pts (02 x C6 – 2 pts bit shift, 2 pts replace overflow, 2 pts XOR)  
8 pts (03 x EB – 6 pts for 02 x EB, 2 pts for final XOR)  
1 pt (01 x 23)  
4 pts final XOR – ½ pt per bit, round down
- 8) 15 pts – 5 pts for add round key (take off 1 pt per error cap at 5)  
5 pts for subbytes (take off 1 pt per error cap at 5)  
5 pts for shift rows (take off 1 pt per error cap at 5)