# 20.180:Assignment3

*20.180 Homework Assignment #4 - Due on Tuesday, April 25 at 5pm*

- You will need these three input files:
  - Dictionary with the genetic code: Media:GeneticCode.dict
  - Text file with protein sequence: Media:Protein.txt
  - Text file with genome: Media:NC_003418.txt
    - When saving these files, make sure the file names are uppercase.

## Corrections to problem set

- The sentence on page one should read "If the first positions of all codons encoding an amino acid are the same, write that nucleotide's letter to the mRNA string (i.e., A, C, U, G)", not (A, C, T, G)!
- From a student: "I was wondering if you could help me with the decoding rules for problem 1. I don't know if I'm interpreting them wrong, but why does it seem like the rules don't cover all possible cases? Such as for arginine, which can only be A/C in the first position, and serine, which can only be C/G in the second position. Are we supposed to assign these nucleotides with H and N respectively, even if substituting U in arginine and A/U in serine will result in a different amino acid codon?"
  - Yes, there was an oversight in the rule-making. However, please still follow the rules outlined in the pdf for the purposes of this assignment. We will not test your code with a protein containing arginine or serine.