Instructions:

1. ALL DUE TIMES ARE IN EST
2. **Upload a Python file to this BB Assignment.**
3. All answers must be in your own words, and copy-and-paste answers will receive no credit.
4. You must submit a **.py file** to be graded.
5. You are limited to 2 submissions
6. **You must be in the lab session to get the lab's credit.**

1. **Searching for patterns:** Create a Python program that can check whether a given DNA sequence contains the pattern

```
TATAxxxATGxxxT
```

where xxx can be any three consecutive DNA bases. That means your program, given some string, should identify if TATA, followed by any three DNA base pairs, followed by ATG, followed by any three DNA base pairs, followed by T can be found in the given string.

Check both the forward and reverse complementary strand.

Create three examples, one with a DNA string that contains the pattern in the forward strand, one that contains the pattern in the reverse complement strand and one that does not contain it in either strand, to demonstrate how the program works.

Please include print statements that identify each different case and the position of the pattern in the string, if found.

Hint: Create functions to aid yourself by separating concerns. For example, one possible division is: 1) Function to calculate the reverse complementary strand, 2) Function that finds the pattern, in a given sequence.