**Lab 03 Template – Ethan Roepke**

1. **List the five most common trigrams**

(10 total points. 2 points each)

1. **Show the difference between the starting indexes of the five most common trigrams.**

(10 total points, 2 points each)

1. **Based on your findings, what do you suspect the key length is? Justify your answer.**

(10 total points, 5 points length value, 5 points justification)

1. **Separate the ciphertext into X shift-by-N ciphers where X is the length of the key and perform monoalphabetic frequency analysis on each. What are the three most common ciphertext characters in each of the shift-by-N ciphers?**

(20 total points, 10 points for separating into X shift-by-N ciphers, 10 points for the common ciphertext characters in each shift-by-N cipher.)

1. **Decrypt the ciphertext using the potential key values you found in question 5.  Show all iterations, the final keyword, and the final plaintext.**

(25 total points, 15 points for all iterations, 5 points for correct keyword, 5 points for correct plaintext)

1. **Submit your documented python code on canvas.**

(25 total points, 10 points for documentation, 15 points for working code.  No points awarded if the code is copy/pasted from someone else.)