MATH 1350: You're the Cryptographer Project

During this course, we have discussed many different ciphers, each with their own strengths and weaknesses. Now it's your turn to be the cryptographer and write your cryptosystem. You could implement one of the ciphers we've talked about in a new way – with a new "alphabet" of more or less letters, with a new ordering to the alphabet, etc. You could also put together a few of the ciphers into one! You should remember the important parts of a cipher that we've talked about in creating your system.

The guidelines for the project are as follows:

1. Create and describe your cryptosystem, including the instructions or equations for encryption and decryption.
2. Do one example of encryption and one example of decryption.
3. Create a new exercise for someone to try encryption with your cipher.
4. Create a new exercise for someone to try decryption with your cipher, with the key.
5. Create some cipher text, preserving natural word spacing, without specifying the key.

For # 3-5, write the answers on a separate piece of paper.

In class on Thursday, you will then learn about and evaluate another student's cipher. Your goal will be encrypting and decrypting with a new cipher, and trying to break the cipher without the key!

Rubric

Creation and description of Cipher	9 points
Examples of Encryption and Decryption	5 points
Exercise on Encryption	2 points
Exercise on Decryption	2 points
Exercise on Decryption without key	2 points
Implement Someone Else's Cipher	5 points
Attempt to Break the Cipher	2 points
Feedback on Strength and Utility of Cipher	3 points
Total:	30 points