

CO 480 Week 1 Learning Goals

By the end of this week, students should be able to...

- Identify major milestones in World War II. These include but are not limited to: Nazi Party and its leader, Treaty of Versailles, Allies and Axis powers, Saarland and Sudetenland, blitzkriegs, “Phony War”, Maginot Line, U-boats.
(See <http://www.strangecosmos.com/content/item/140489.html>)
- Describe Tutte’s role in the war.
- Identify Alastair Denniston and his contribution to the war.
- Identify basic components of cryptography.
- Explain the difference between the Enigma and Lorenz machine.
- Describe teletype components.
- Explain the difference between FISH, tunny and the Lorenz machine.
- Identify the hardships Tutte had to overcome to make progress on decrypting FISH.
- Describe the basics behind FISH (ie., encrypting with an additive cipher, how XOR works, etc.)
- Describe a substitution cipher. Be able to use a key to encrypt and decipher such a method.
- Be able to decrypt a substitution cipher using frequency methods.
- Describe a Vigenère cipher. Be able to use a key to encrypt and decipher such a method.
- Be able to decrypt a Vigenère cipher using Kasiski’s test and/or the index of coincidence.