

## COSC 440 – Assignment #1 Fall 2012

Choose one of the following topics and write a 5-page (double spaced, 12 pt, Times New Roman font with normal margins) paper on said topic:

- Cryptography
- Randomness
- Machine Learning
- Artificial Intelligence
- Quantum Computation
- Distributed Computation

The content of your paper should include a broad summary of the field and must address why these would be considered in the realm of theoretical computer science. Provide specific examples of projects being undertaken in the topic of your choice that are theoretical in nature (rather than applicative). You must include at least 5 non-wiki based sources and have a Works Cited page (this page does not count toward the 5 page requirement). Follow the American Mathematical Society style guide for citations (See <http://facstaff.unca.edu/pbahls/GGGstuff/2012/Scavenger.pdf> for a general guideline). All citations must be inline (e.g. [1]) where the number refers to the citation in the Works Cited page.

**Due:** September 24, 2012 at the start of class.