

## **Math 1111: Cryptography, Fall 2017**

### **Paper #2 – Practical Crypto**

In this paper, you will identify and describe one way that cryptography is (or could be) relevant to the digital life of a college student in 2017. You might address one of the ways that cryptography is embedded in the computer systems we already use (e.g. how credit card information is encrypted by websites) or explain how to better protect one's online privacy by adopting new practices (e.g. sending and receiving encrypted emails). Your paper will have an expository component, in which you explain cryptographic and/or mathematical processes in ways a fellow student can understand, and an argumentative component, in which you make the case for why a fellow student should care about the topic you've chosen.

You'll have an authentic audience for this paper: VIPER, the Vanderbilt Internet Privacy and Electronic Rights student organization. According to their [website](#), "VIPER wants to provide Vanderbilt students with the tools and knowledge necessary to protect their privacy and rights online and to make informed decisions in a political climate rapidly addressing new issues related to technology and the Internet." You'll have the chance to pitch your paper to VIPER for distribution on their website, and you'll be asked to create some kind of social media content that could be used by VIPER to interest Vanderbilt students in reading your paper.

Your paper will be graded on the strength and clarity of your arguments as well as the effectiveness of your technical explanations. See the rubric for details. Some of the better papers from the 2014 and 2015 offerings of this class are available [on the course blog](#). (Note that the word count was much higher for the 2014 version of this assignment.)

### **LENGTH AND FORMATTING**

Your paper should be between 1,500 and 2,000 words in length, and it should use American Psychological Association (APA) formatting for citations and references. Citations appear within the text of your paper, references at the end. Both should be properly formatted. See Purdue University's [Online Writing Lab](#) for a useful guide to APA formatting.

As for the piece of social media content you create to go along with your paper, I'm leaving this part of the assignment pretty open. You might create an infographic, a meme, a really short video, a graphic, or something else. As long as it's shareable easily on some social media platform and it has the potential to interest Vanderbilt students in reading your paper.

### **DRAFTS AND REVISIONS**

Note that no more than two students will be allowed to choose the same topic, so email me for approval of your topic choice as soon as you have it. An outline of your paper is due at the start of class on Monday, November 13<sup>th</sup>. We'll workshop your papers in class that day.

Your final paper and social media content are due at the start of class on Wednesday, November 29<sup>th</sup>, submitted through Brightspace. I'm not planning a revision cycle for this paper, so make sure this version is solid.

## **ACADEMIC INTEGRITY**

Please familiarize yourself with Vanderbilt's Honor System. I'm encouraging a lot of sharing and collaboration in this course, but your work on your paper assignments should be your own. Please be careful not to plagiarize. The Writing Studio has a great set of [resources](#) on working with sources in academic writing. We'll spend some class time exploring plagiarism and academic integrity more generally.

If your life is falling apart and you are tempted to plagiarize to save time or get a good grade, please see me instead. I would rather grant you an extension than send you before the Honor Council.