Tamara B Veenstra* (tamara_veenstra@redlands.edu). Historical Codes and Ciphers as a First Year Seminar. Preliminary report.

I have taught many different first year seminars with topics ranging from Mathematics and Art, Mathematics of Cryptology, Fantasy Novels (no mathematical content), and currently Historical Codes and Ciphers. I will primarily discuss the current Historical Codes and Ciphers seminar but will also discuss a number of lessons learned about first year seminars from the other seminars. One of the great advantages of teaching a first year seminar is that there is so much freedom to choose interesting topics. One of the great challenges is that there are so many learning outcomes and requirements based on the general first year experience and transition to college. It is especially challenging to find ways to connect mathematical content to these other goals of strengthening students’ skills in reading, writing and speaking, addressing issues related to the transition from high school to college, and the purpose and value of a liberal arts education. I have found that picking a topic that allows students to connect mathematical topics with other areas such as literature, history, science, art, or popular culture has been a good solution to this problem. I will discuss in detail how this works in my Historical Codes and Ciphers class. (Received September 06, 2017)