

1067-C5-1942 **Aihua Li*** (lia@mail.montclair.edu), 1 Normal Avenue, Montclair, NJ 07043. *Cryptography, a Great Topic for Undergraduate Mathematics Courses.*

In this talk, I will share with the audience my experience in teaching cryptography to undergraduates. Cryptography is a great topic to be introduced to undergraduate students of any major, especially math and computer science majors. The fascinating underlying mathematics, its broad interdisciplinary feature, and the wonderful applications in the current hot area of communication security, make this topic a rich and attractive one to our majors. My students enjoyed the cryptography class very much and they showed great motivation and enthusiasm in the course activities, such as group projects that lead them to explore encryption and decryption procedures themselves. Through doing the projects, students raised the level of their mathematics skills, critical thinking, logical reasoning, and their appreciation of the mathematical ideas. As an elective course for our math majors, this class introduces the history of cryptography, basic concepts and underlying mathematics, and several simple cryptosystems. I also introduced simple cryptosystems and the underlying mathematics to a general education class for non-science majors. Those students were also amazed by the topic. (Received September 22, 2010)