1125-B1-39 **Joseph H Silverman*** (jhs@math.brown.edu), Mathematics Department - Box 1917, Brown University, Providence, RI 02912. *Cryptology as a Post-Linear Algebra Gateway to Advanced Mathematics.*

In this talk I will describe the Brown University course in Mathematical Cryptology created jointly with Jeff Hoffstein and Jill Pipher. The course uses public key cryptology as the framework to introduce science and math majors to a variety of mathematical topics, including group theory, number theory, probability, information theory, and analysis of algorithms, as well as more advanced topics such as elliptic curves and lattices. The mathematics is tied together through the study and comparison of public key cryptosystems and digital signature schemes based on factorization (RSA), discrete logarithms (ElGamal, ECC), and lattice problems (NTRU). This course, which attracts students from across the sciences, is one of our most popular upper level courses. (Received June 14, 2016)