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Mike May* (maymk@slu.edu), Department of Math and Computer Science, Saint Louis University, 220 N Grand Blvd, St Louis, MO 63103. Explorations of elliptic curves in undergraduate cryptography with minimal student background through the use of Maple worksheets.

Elliptic curves have become a standard tool in modern public key cryptography, but they are often omitted from an undergraduate course because of computational and mathematical difficulty. At Saint Louis University, we have been teaching a course in cryptography that has only Calculus II as a prerequisite. We have made the material more accessible through the use of Maple Worksheets. This talk will focus on explorations of elliptic curves through the use of worksheets. It will show some of the explorations made accessible to the students and highlight the cryptographic uses and underlying algebraic concepts illustrated by the explorations. (Received August 21, 2008)