Field Trip #1	**Cryptography**
Developed by:	Dr. Todd Andel, Associate Professor
Subject:	Cryptography
Short description:	Students learn fundamentals of basic cryptography. They will be able to encrypt & decrypt messages, as well as perform basic cryptanalysis.
Educational Level:	9^{th} – 12^{th} Grade
Field trip type:	Lecture with activity
Educational Outcomes:	The Student Will Be Able To: • Explain how a shift cipher works • Encrypt a message • Decrypt a message • Perform cryptanalysis on a secret message
Content:	
Notes to instructor:	This activity should be done in a computer lab or a classroom with laptop computers. The instructor should have a computer connected to an overhead projector for lecture & demonstration. Java runtime environment must be present as well as connection to the Internet to reach the referenced Java applets. It may also be helpful to have pre-encrypted messages with various plaintexts encrypted via different keys so students can use input to cryptanalysis exercises. Lecture slides are also provided.