INSTRUCTOR: Chris Christensen
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Office: ST 353
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Websites:  
http://www.nku.edu/~christensen/  
http://www.nku.edu/~cryptography/

OFFICE HOURS: M 8:00 – 8:50, T 8:00 – 9:00, W 2:00 – 2:50, R noon – 1:00,
F 1:00 – 2:00, by appointment, and by capture.

CLASS TIME: MWF 12:00 - 12:50. ST 254.

PREREQUISITE: C- or better in MAT 234 or CSC 362 or CSC 364.

TEXT: No text book is required.

GRADING: The tests and the exam will be “take home.”

Three tests worth 100 points each  300

Comprehensive final exam
Due F, May 7 before noon

Exercises
Due F, May 7  50

Project

Due F, May 7  50

600

Work missed during excused absences may be made up without penalty.

A tentative grading scale is:  92-100 is an A, 90-91 is an A-, 88 - 89 is a B+, 82 - 87 is a
B, 80 – 81 is a B-, 78 - 79 is a C+, 72 – 77 is a C, 70 - 71 is a C-, 68 - 69 is a D+, 60 –
67 is a D, and below 60 is an F.

ATTENDANCE: You are responsible for all material assigned or covered in class.
Attendance will not be taken.

Mid-Term grades for freshmen will be entered March 1 - 15.

WITHDRAWAL: The deadline for withdrawing from this course with a grade of W is
Monday, March 29. Withdrawal after that date is not likely to be permitted.

The instructor reserves the right to alter the syllabus if circumstances dictate.
The work you will do in this course is subject to the Student Honor Code. The Honor Code is a commitment to the highest degree of ethical integrity in academic conduct, a commitment that, individually and collectively, the students of Northern Kentucky University will not lie, cheat, or plagiarize to gain an academic advantage over fellow students or avoid academic requirements.

Course learning objectives:

- The student will understand the cryptographic and cryptanalytic ideas that are the foundations of modern cryptology.
- The student will be able to apply mathematical ideas to construct and break a collection of classical ciphers, block ciphers, and public key ciphers.
- The student will be able to clearly and correctly express cryptologic ideas orally and in writing.
- The student will apply ideas from number theory, linear algebra, algebra, and statistics to construct and break ciphers.
- The student will learn how to search for the ghosts of patterns in seemingly meaningless ciphertext.
- The student will use various pieces of software as tools for cryptography and cryptanalysis.

Attainment of course learning objectives will be measured by three tests, a comprehensive final exam, exercises, and a project.

Software:

Much can be done by hand, but it is not necessary to do so.
There is a lot of cryptologic software on the web.
Some software will be posted on the class website.