Cryptography Level I Certificate

Cryptography Level I Certificate Requirements

13 credits

Code	Title	Hours
Required Courses		
CS 1400	Fundamentals of Programming (Prerequisites: CS 1030 (Grade C- or higher); OR MATH 1010 or higher Math Course (Grade C or higher); OR ACT Math score of 23 or higher or equivalent placement score within two years of enrollment in this course.)	3
MATH 1210	Calculus I (MA) (Prerequisites: MATH 1010 and MATH 1050 and MATH 1060 OR MATH 1080 or equivalent placement score.)	4
MATH 2200	Discrete Mathematics	3
or CS 2100	Discrete Structures	
MATH 2905	Survey of Cryptography	3
Total Hours		**13**

Completion Requirements

1. Complete 13 hours of specified coursework that includes:
   a. 3 credit hours of computer science programming,
   b. 10 credit hours of mathematics.
2. Complete all coursework with a C or higher.
3. Cumulative GPA of 2.0 or higher.

Cryptography I Certificate Program Learning Outcomes

At the successful conclusion of this program, students will be able to:

1. Demonstrate a broad understanding of the mathematical and computer scientific background required for classical and modern cryptosystems.

2. Outline how crypto can be used, strengths and weaknesses, modes, and issues that have to be addressed in an implementation.

3. Implement and attack pedagogical models of classical and modern cryptosystems.