

Undergraduate Certificate in Cybersecurity

toward the degree. For students who have enrolled in the BSEE/CoE/CS/IC programs, all the credits obtained before applying to the certificate will count toward the certificate.

The Undergraduate Certificate in Cybersecurity is a 12-credit undergraduate-level certificate designed to provide fundamental knowledge of information security concepts, cryptography, information and network security and computer systems security, as well as real-world practice with hand-on experiences in cyber defense. The purpose of this undergraduate certificate is to offer a credential that covers both the theoretical and practical aspects of cybersecurity to students who are currently pursuing baccalaureate work in KU EECS department.

The entrance requirements for students entering the undergraduate certificate of cybersecurity program include:

- Upper-level eligibility in KU EECS **AND**
- Overall GPA of 2.8 or better **AND**
- three letters of reference.

The proposed Undergraduate Certificate in Cybersecurity requires the completion of three core courses and one elective course at a total of 12 credit hours.

Core Courses/Theory (2 courses, 6 credit hours required)

EECS 563: Introduction to Communication Networks (3 credits)

EECS 565: Introduction to Information and Computer Security (3 credits)

Core Courses/Practice (1 course, 3 credit hours required)

EECS 465: Cyber Defense (3 credits)

or EECS 455: Cyber Defense Practice (1 credits/semester * 3 semesters)

Elective Courses (1 course, 3 credit hours required)

EECS 569 Digital Forensics: (3 credits)

EECS 665 Compiler Construction (4 credits)

EECS 700: Mobile Security (3 credits)

EECS 711 Security Management and Audit (3 credits)

EECS 738: Machine Learning (3 credits)

EECS 742: Static Analysis

EECS 755: Software Modeling and Analysis

EECS 765: Introduction to Cryptography & Computer Security

The completion requirements of the cybersecurity certificate include:

- students must have a GPA of 3.0 or better in all certificate courses **AND**
- The minimum grade for any course to be applied toward the certificate is a grade of C

Note: For students who have been enrolled in the BSEE/CoE/CS/IC programs, all the credits obtained in the certification program will count