

# Certificate in Cybersecurity

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## About This Program

The Certificate in Cybersecurity is offered through the Computer Science and Engineering Department and will educate undergraduate students in the knowledge and skills required to identify and proactively mitigate potential cyber security risks. Students will learn about cryptographic techniques and public key infrastructure, secure programming techniques, and computer network security including intrusion detection devices and firewalls. This program aims at the dual goal of providing industry with a knowledgeable, locally available workforce while developing career opportunities for its participants. The Certificate in Cybersecurity will be awarded concurrently with an undergraduate degree.

## Competencies

1. Upon completion, students will have an ability to understand the mathematical and algorithmic properties of methods commonly used in the areas of cryptography, secure communications, and data privacy.
2. Upon completion, students will have an ability to implement, in modern programming languages, a variety of fundamental techniques in cryptography and security. Examples of such techniques include symmetric and asymmetric encryption, hash functions, and key exchange protocols.
3. Upon completion, students will have the ability to apply this knowledge to subject areas such as secure network protocols, blockchain technology, and authentication systems.

## Admissions Criteria

The certificate is open to all degree-seeking students. Student who are not a part of an engineering professional program should contact a CSE advisor for permission.

## Curriculum

### Foundations

CSE 4344 or CSE 4352	COMPUTER NETWORK ORGANIZATION IOT AND NETWORKING	3
CSE 4380	INFORMATION SECURITY	3
CSE 4381	INFORMATION SECURITY II	3
CSE 4382	SECURE PROGRAMMING	3

<b>Total Hours</b>	<b>12</b>
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Course substitution must be approved in advance by the certificate coordinator.

## Program Completion

A combined GPA of 3.0 or better must be earned on all courses used to satisfy the certificate requirements.

## Advising Resources

First time in college students meet with engineering advisors in the UAEC (UAECengineering@uta.edu). Transfer students are advised prior to New Maverick Orientation by the department. Students, please read all student emails carefully and consult the department advising webpage for additional contact information and answers to common questions.

### Location:

ERB 6th Floor: ERB 643, ERB 644, ERB 645, ERB 646, ERB 622A

### Email:

cseugadvising@uta.edu

### Phone:

817-272-3785

### Web:

Find our contact information, walk-in advising schedule, and virtual appointment links here (<https://www.uta.edu/academics/schools-colleges/engineering/academics/departments/cse/students/undergraduate-advising/>)