

# Cybersecurity and Healthcare IT Certificate

## Degree Type Certificate

The Cybersecurity and Healthcare IT certificate meets the need for healthcare providers and associated businesses to be confident that every aspect of their operation is electronically secure. As the functions of healthcare include scheduling, storage of images, filling prescriptions, billing, and more are handled and stored using information technology, the need to build electronic and data transfer systems to support these functions, and to protect the information, has dramatically increased. With this shift, the vulnerability of healthcare records has also increased through errors, acts of negligence, and malice. The workforce responsible for this electronic information must be skilled in assuring confidentiality and integrity and availability of IT systems and networks. This unique program focuses on the integration of technology along with the needs of the healthcare industry, thereby increasing the value of the cybersecurity professional.

Cybersecurity is the practice of protecting computer systems against unauthorized access or attack and maintaining the smooth functioning of information systems at all levels. At present, programs that provide such Cybersecurity training are not widely available, and the additional concentration on healthcare is a unique aspect of this program.

Applicants to the Cybersecurity and Healthcare IT Program must meet the general admission requirements to the College and interview with the Program Director. It is expected that applicants already have a basic knowledge of computer hardware and software. Applicants who do not possess this knowledge may be required to take additional courses to meet this need. If you are attending college part-time, it will take more than one year to complete this certificate program.

Students must earn a grade of “C” or higher in all CYBS/CSCI technology courses required for graduation to progress within the program and graduate. All courses within this certificate program can be transferred into the Cybersecurity and Healthcare IT Associate degree program.

Note: Students who are unable to pass a criminal background check may find it difficult to obtain or stay employed in the Cybersecurity industry.

## Program Mission

To develop and train cybersecurity technology professionals who can help companies manage and protect their systems and utilize their skills in technology as well as within a medical environment.

## Program / Student Outcomes

This program will provide students with a strong foundation of understanding in cybersecurity. Students will learn:

- the broad discipline of cybersecurity and develop a foundation of knowledge of the field
- to write clearly and effectively for defined audiences through a variety of strategies
- the purpose behind their field of study, how to best interact with the people in their work environment, and the career path that is best aligned with their personal goals
- how to use multiple operating systems commonly found in the Cybersecurity Technology field today
- basic security principles for information assurance
- the basics of descriptive and inferential statistics
- the basics of the web development process and types of cyber attacks that can occur
- computer networking through the introduction of the Open Systems Interconnection (OSI) model, the TCP/IP protocol suite, routing and switching protocols, Wide Area Network services, and network design & implementation
- a programming language and be able to design and implement simple programs dealing with numerical and string processing

- to implement, maintain and protect a Microsoft Windows Server Domain
- to perform ordinary tasks in the Linux operating systems
- the methods in which emerging technologies can be deployed on current and future platforms
- how to succeed in an information technology position through an Internship or Capstone course

#### NOTE

\* Most courses have co/prerequisites. See course descriptions for requirements.

<b>Total Credits</b>	<b>18</b>
<b>Course Sequencing</b>	

## Fall Semester

Item #	Title	Credits
CYBS101R	Principles of Information Assurance	3
CYBS110R	Topics in Healthcare Information Technology	3
CYBS120R	Network Security	3
CYBS250R	Digital Forensics	3

## Spring Semester

Item #	Title	Credits
CYBS130R	Enterprise Security Management	3
CYBS140R	Secure Electronic Commerce	3