Healthcare Information Security

8339 36 weeks

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Office of Career, Technical, and Adult Education
Virginia Department of Education

Course Description

Suggested Grade Level: 10 or 11 or 12
Prerequisites: 6302

This course is designed to provide students in the healthcare setting with knowledge of the basic Health Insurance Portability and Accountability Act (HIPAA) related to ensuring patients' rights for privacy and security of their personal health information (PHI). Students will focus on healthcare professionals' accountability for documentation and disclosure of the electronic health record (EHR) and the electronic medical record (EMR).

Task Essentials Table

- Tasks/competencies designated by plus icons (⊕) in the left-hand column(s) are essential
- Tasks/competencies designated by empty-circle icons (◯) are optional
- Tasks/competencies designated by minus icons (⊖) are omitted
- Tasks marked with an asterisk (*) are sensitive.

8339	Tasks/Competencies
Exploring HIPAA Basics	
⊕	Describe the evolution of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).
⊕	Explain consumer rights under HIPAA.
⊕	Outline the HIPAA Privacy Rule.
⊕	Describe the Security Rule.
⊕	Examine laws and regulations regarding the Privacy Rule and HIPAA.
⊕	Examine the enforcement of the Privacy and Security Rules and the penalties for noncompliance.
⊕	Describe cybersecurity measures related to HIPAA.
⊕	Research special topics in health information privacy.
⊕	Describe a business associate per the Privacy Rule.
⊕	Explain the principles of PHI.
⊕	Describe the general principles for use and disclosure under the Privacy Rule.
⊕	Describe permitted use and disclosure.
⊕	Describe authorized use and disclosures.
⊕	Activate Privacy and Security Training Games.
Configuring the Electronic Health Record (EHR)	
⊕	Outline the process of migration to an EHR.
⊕	Summarize the migration path from a paper health record to an EHR.
⊕	Describe clinical decision support systems.
⊕	Configure an EHR system to achieve features required for meaningful use.
⊕	Describe the concepts of privacy and security as applied to the EHR.
Examining Vendor-Specific Systems	
⊕	Describe the most common commercial EHR systems used in ambulatory and inpatient care settings.
⊕	Describe the Certification Commission for Health Information Technology (CCHIT) and its role in the certification of commercial EHR systems.
⊕	Explain how organizations select EHR systems.
⊕	Describe the EHR functionality of a results review.
⊕	Demonstrate knowledge of system and database architectures used in commercial EHR systems.
Exploring Usability and Human Factors	
⊕	Explain the importance of technology in health care.
⊕	Explain key elements of customer service in health IT.

Legend: ⊕Essential ◯Non-essential ⊖Omitted

Curriculum Framework

Exploring HIPAA Basics

Task Number 39

Describe the evolution of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

Definition

Description should include

- Standards for Privacy of Individually Identifiable Health Information
- U.S. Department of Health and Human Services (HHS) Privacy Rule
  - knowledge of protected health information (PHI) by covered entities
  - standards for individuals' privacy rights to control how their health information is used
  - implementation and enforcement by the Office for Civil Rights (OCR)
- Administrative Simplification rules application to
- health plans
  - healthcare clearinghouses
  - healthcare providers who transmit information in electronic form
- Computer-Based State Attorneys General Training Modules
- Office of Civil Rights: Privacy, Security, and Electronic Health Records
- Office of Civil Rights: Sharing Health Information with Family Members and Friends
- Office of Civil Rights: Your Health Information Privacy Rights
- NICCS HIPAA Compliance Officer Training
- U.S. Dept. of Health and Human Services OCR Brief: Summary of the HIPAA Privacy Rule
- Glossary: HIPAA Enforcement Training for State Attorneys General.

Teacher resource:
Health Insurance Portability and Accountability Act of 1996 (HIPAA), U.S. Department of Health and Human Services

Process/Skill Questions

- Who is responsible for the enforcement of the HIPAA Act of 1996?
- What is the protocol for reporting HIPAA violations and concerns?
- What are the covered standards of PHI, and how are they used?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics

Task Number 40

Explain consumer rights under HIPAA.

Definition

Explanation should include

- [Your Health Information Privacy Rights - PDF](#)
- [Privacy, Security, and Electronic Health Records - PDF](#)
- [Sharing Health Information with Family Members and Friends - PDF](#)
- [Your Health Information, Your Rights! - PDF](#)

Teacher resources:
OCR has teamed up with the HHS Office of the National Coordinator for Health IT to create *Your Health Information, Your Rights!,* a series of three short, educational videos (in English with an option for Spanish captions) to help you understand your rights under HIPAA to access and receive a copy of your health information.

Video 1: [Individual's Right under HIPAA to Access their Health Information](#)
Video 2: [HIPAA Access Associated Fees and Timing](#)
Video 3: [HIPAA Access and Third Parties](#)

Process/Skill Questions

- What are examples of health information privacy rights?
- To whom is the health professional allowed to communicate or release PHI?
- Who should inform the patient of his/her rights and obtain informed consent?

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Health Science Events

o   Knowledge Test: Medical Law and Ethics

Task Number 41

Outline the HIPAA Privacy Rule.

Definition

Outline should include

- regulations covering both security and privacy of PHI
- physical security of PHI in all formats.

Teacher resource:
[Privacy Rule, U.S. Department of Health and Human Services](#)

Process/Skill Questions

- What information is protected by the HIPAA Privacy Rule?
- What are examples of regulations applicable to the Privacy Rule?
- How do these regulations protect a client's health information?
- What are examples of physical security measures?

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Health Science Events

o   Knowledge Test: Medical Law and Ethics

Task Number 42

Describe the Security Rule.

Definition

Description should include

- standards of the Security Rule legislation dealing specifically with Electronic Protected Health Information (EPHI)
- protections contained in the Privacy Rule

- safeguards covered entities must provide
- focus on administrative, technical, and physical safeguards
- goal of program to protect privacy of PHI while allowing covered entities to adopt new technologies.

Teacher resources:
[Security Rule, U.S. Department of Health and Human Services](#)

[Security Rule Guidance Materials, U.S. Department of Health and Human Services](#)

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Health Science Events

o   Knowledge Test: Medical Law and Ethics

Task Number 43

Examine laws and regulations regarding the Privacy Rule and HIPAA.

Definition

Examination should include federal laws and regulations addressing confidentiality, privacy, and security, such as

- [Privacy Rule](#)
- [Security Rule](#)
- [Patient Safety Rule](#)
- [HIPAA Enforcement Rule](#)
- [Omnibus Rule](#)
- [HIPAA Breach Notification Rule](#)
- [Health Information Technology for Economic and Clinical Health (HITECH) Final Rule](#).

Teacher resource:
[Summary of Selected Laws and Regulations Addressing Confidentiality, Privacy, and Security, ONC.](#)

Process/Skill Questions

- What is the difference between confidentiality and privacy?
- What does the Omnibus Rule address?
- What patient safety rules address confidentiality, privacy, and security?
- What is the formal process for a breach notification investigation?
- What is the HITECH Act and meaningful use? What are the goals of the HITECH Act of 2009?
- How does the HITECH Act enhance the security and privacy protections of HIPAA?

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Health Science Events

- o Knowledge Test: Medical Law and Ethics

Task Number 44

Examine the enforcement of the Privacy and Security Rules and the penalties for noncompliance.

Definition

Examination should include

- dates compliance requirements went into effect
- enforcement duties of the OCR, such as
    - o investigating complaints
    - o conducting compliance reviews
    - o performing education and outreach
    - o interpreting and implementing the confidentiality protections and enforcement provisions in section 922
- violations resulting in
    - o civil money penalty (CMP)
    - o requests for a hearing by the covered entity
- beneficiary of CMP
- breach notification requirements of secured and unsecured PHI
- Resolution Agreements
- The Patient Safety and Quality Improvement Act of 2005 (PSQIA).

Process/Skill Questions

- Who receives the CMP funds? Who at the OCR conducts the official compliance investigation?

- How does the HITECH Act enhance the breach notifications of HIPAA?
- What is the purpose of the PSQIA?

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Health Science Events

o Knowledge Test: Medical Law and Ethics

Task Number 45

Describe cybersecurity measures related to HIPAA.

Definition

Description should include

- HHS guidance for covered entities
- OCR monthly newsletter
- threat of medical identity theft
- threat of ransomware
- FACT SHEET: Ransomware and HIPAA
- HHS Cybersecurity Newsletter Archives
- Cyber-Attack Checklist
- Cyber-Attack Quick Response
- Federal Trade Commission's FAQ on Medical Identity Theft.

Teacher resources:
The hospital held hostage by hackers, CNBC

Cybersecurity vulnerabilities in medical devices: a complex environment and multifaceted problem, Dove Press

The biggest healthcare data breaches of 2018 (so far), Healthcare IT News

Process/Skill Questions

- What are *dumpster diving*, *shoulder surfing*, *social engineering*, and *tweaking*?
- What are the cyber risks related to the use of personal devices in the healthcare setting?
- What are the steps to securing transactions on personal devices?

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o   Knowledge Test: Medical Law and Ethics

Task Number 46

Research special topics in health information privacy.

Definition

Research should include identification of special topics, such as

- HIPAA and the FTC Act
- Emergency Situations: Preparedness, Planning, and Response
- Genetic Information
- HHS Strengthens Patients' Right to Access Lab Test Reports
- Guidance on HIPAA, Same-sex Marriage, and Sharing Information with Patients' Loved Ones
- Cloud Computing
- HIPAA and the Opioid Crisis-Read How HIPAA Allows Information Sharing to Address the Opioid Crisis–(PDF)
- Mental Health & Substance Use Disorders
- Student Immunization
- Information is Powerful Medicine: HIV and HIPAA
- HIPAA Privacy Rule and the National Instant Criminal Background Check System (NICS)
- guidelines for the purging of medical records, including dental and chiropractic records, when a healthcare facility closes
- mental health incarceration.

Process/Skill Questions

- How has cloud computing changed the face of medical care?
- Who owns health information in the cloud?
- What are the major security and privacy challenges of cloud computing?
- What are some special topics under the HIPAA Act?
- Who has the right to decide the disclosure of genetic information?

Task Number 47

Describe a business associate per the Privacy Rule.

Definition

Description should include

- the definition of a business associate as a person or organization other than the covered entity's workforce that performs functions on behalf of the covered entity (e.g., claims processing, data analysis, utilization review, billing)
- functions of business associates.

Teacher resource:
Business Associate Contract samples

Process/Skill Questions

- What is a business associate?
- What are the functions of a business associate?
- What is the difference between a business associate and a covered entity?

Task Number 48

Explain the principles of PHI.

Definition

Explanation should include knowledge of

- individually identifiable health information
    - demographic data that can identify the individual's past, present, or future physical or mental health or condition
    - common identifiers (e.g., name, address, birth date, Social Security number)
- Privacy Rule, which protects all individually identifiable health information held or transmitted by a covered entity or business associate, in any form (i.e., electronic, paper, oral)
- provisions of health care to the individual
- past, present, or future payment for the provision of health care to the person
- individually identifiable health information including many Privacy Rule excludes from PHI employment records that a covered entity maintains related to employer, education, and certain other records per the Family Educational Rights and Privacy Act. 20 U.S.C &1232g
- de-identified health information which has no restrictions on the use or disclosure
- de-identified information which neither identifies nor provides a reasonable basis to identify a person
- two ways to de-identify information
    - formal determination by a qualified statistician

- o removal of specified identifiers of individual, family members, household members, and employer.

Process/Skill Questions

- What forms of media are covered under the Privacy Rule?
- Who can release health information?
- How can payment history affect patient care?
- What are the individual identifiers under PHI?
- What is de-identified health information?
- How does one de-identify PHI?

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Health Science Events

- o Knowledge Test: Medical Law and Ethics

Task Number 49

Describe the general principles for use and disclosure under the Privacy Rule.

Definition

Description should include

- Basic Principle
  - o defines and limits the circumstances under which PHI may be used or disclosed by covered entities
  - o states that the covered entity may not disclose PHI except
    - as the Privacy Rule permits or requires
    - as the individual authorizes in writing
- Required Disclosure
  - o states that the covered entity must disclose PHI in only two situations
    - individual or individual's representative (e.g., attorney)
    - HHS when it is undertaking a compliance investigation, review, or enforcement action.

Teacher resource:
Minimum Necessary Requirements, Office of Civil Rights, U.S. Department of Health and Human Services

Process/Skill Questions

- What are the minimum requirements for general principles for use and disclosure?
- What are acceptable methods of transferring PHI?
- What individuals or entities have the right to access PHI?

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      Health Science Events

        o   Knowledge Test: Medical Law and Ethics

Task Number 50

Describe permitted use and disclosure.

Definition

Description should include that the covered entity is permitted, but not required, to use and disclose PHI without an individual's authorization for the following circumstances:

- at the individual's request
- for treatment, payment, and healthcare operations
- to provide an opportunity to agree or disagree
- for an incident related to an otherwise permitted use and disclosure
  - living will
  - power of attorney
  - speaker present
  - advanced directive
- for public interest and benefit activities
- to provide limited data set for the purposes of research, public health, or healthcare operations
- for victims of abuse, neglect, or domestic violence
- to facilitate health oversight activities
- for judicial and administrative proceedings
- for law enforcement purposes
- in cooperation with cadaveric organ, eye, or tissue donation
- for decedents
- for research
- in cases of serious threat to health or safety
- to facilitate essential government functions (e.g., the fight against terrorism)
- to facilitate a workers' compensation claim

Process/Skill Questions

- What criminal act allows for permitted disclosure of PHI under essential government functions?
- Why does workers' compensation qualify as permitted disclosure?
- Why are the incidental use and disclosure forms important?

Task Number 51

Describe authorized use and disclosures.

Definition

Description should include expectations such as

- individual's written authorization for any disclosure of PHI that is not for treatment, payment, or healthcare operations otherwise permitted under the Privacy Rule
- written format
- specific terms (i.e., access to a part of the record rather than the whole)
- plain language
- persons disclosing and/or receiving the information
- authorization obtained to disclose any psychotherapy notes.

Process/Skill Questions

- What are some examples of specific terms?
- Why is it important to establish patient ownership of the healthcare record?
- What is meant by *plain language*?
- What types of authorization are necessary for disclosures?
- When can PHI be released without authorization?

HOSA Competitive Events (High School)

Health Science Events

- Knowledge Test: Medical Law and Ethics

Task Number 52

Activate Privacy and Security Training Games.

Definition

Activation should include

- [Privacy and Security Training Games](#)
- [API Education Module video](#).

Teacher resource:
[Digital Hospital Series: Overview, IBM Watson Health](#)

[Digital Hospital, Assuta Hospital](#)

[Fear of hackers targeting hospitals, medical devices, ABC News](#)

Process/Skill Questions

- How do simulations enhance understanding of privacy and security training?
- What might one learn from participating in a specific simulation?
- What are the hot topics related to privacy and security gaming and videos?

Configuring the Electronic Health Record (EHR)

Task Number 53

Outline the process of migration to an EHR.

Definition

Outline should include perspectives of

- organizational strategy
- planning
- analysis of EHR options
- decision-making techniques
- training
- implementation strategies.

Teacher resource:

Process/Skill Questions

- What are the key components of an EHR?
- What characteristics do healthcare entities look for in an EHR?
- Who should be trained on EHRs?
- What types of training are necessary for EHRs?

Task Number 54

Summarize the migration path from a paper health record to an EHR.

Definition

Summary should include the importance and use of clinical decision support systems for clinical and administrative uses, such as

- registration
- admissions
- discharge
- clinical assessment
- dietary management
- pharmacy
- diagnostics (e.g., lab, radiology)
- transportation.

Process/Skill Questions

- What was the main reason for switching to electronic processing of health information?
- What types of alerts and notices are inherent in the migration path?
- What is the difference between the use of the clinical support system and the use of the administrative support system for EHR?

Task Number 55

Describe clinical decision support systems.

Definition

Description should include the importance and use of clinical decision support systems for clinical and administrative use, including

- alerts/notifications in simulations
- order checks in a simulation EHR environment
- reminders in a simulation EHR environment
- EHR functioning as clinical decision support tools.

Process/Skill Questions

- What are some typical alerts produced by the EHR?
- What kind of order checks should be in an EHR?
- How does simulation improve use of the EHR?

Task Number 56

Configure an EHR system to achieve features required for meaningful use.

Definition

Configuration should include consideration of

- patient care clinical workflow
- implementation of clinical decision support
- building of order sets
- utilization of data entry templates
- health summary and clinical reminder reports.

Process/Skill Questions

- What are insurance companies' general recommendations for patient process timing?
- What are the elements of an order set?
- What does *meaningful use* mean?

Task Number 57

Describe the concepts of privacy and security as applied to the EHR.

Definition

Description should include

- regulatory frameworks
- risk management
- authentication and authorization
- user passwords
- portable devices (e.g., mobile phones, iPads, Google watches)
- physical security of systems
- malware.

Process/Skill Questions

- What are the goals and focus of the risk management department?
- What is the difference between authentication and authorization?
- What is malware? What are some common examples?
- What constitutes a portable device?
- What makes a strong password?

HOSA Competitive Events (High School)

     Health Science Events

     o   Knowledge Test: Medical Law and Ethics

Examining Vendor-Specific Systems

Task Number 58

Describe the most common commercial EHR systems used in ambulatory and inpatient care settings.

Definition

Description should include

- Health Information and Management Systems Society (HIMSS) resources available on EHR systems

- functions and applications of HIMSS resources available on EHR systems
- functions and applications of Keystone Library Automation System (KLAS) ratings available on EHR systems
- KLAS rating system to evaluate software selections for ambulatory and acute care EHRs
- a summary of inpatient and ambulatory vendors.

Process/Skill Questions

- What are some of the most common commercial EHR systems used in ambulatory and inpatient care settings?
- What is the numerical rating of the KLAS system?
- What is the purpose of HIMSS?

Task Number 59

Describe the Certification Commission for Health Information Technology (CCHIT) and its role in the certification of commercial EHR systems.

Definition

Description should include

- how CCHIT criteria are used for certification of EHR systems
- the benefits of meaningful use of EHRs
- examples of meaningful use of EHRs in given scenarios
- the three stages of implementation for meaningful use of EHRs
- the role of governing bodies certifying commercial EHRs, including Food and Drug Administration (FDA) oversight, the Joint Commission, and National Patient Safety Goals.

Process/Skill Questions

- Who monitors CCHIT?
- What three stages of implementation are required for meaningful use?
- What are the three main regulatory agencies for patient care regarding EHRs?

Task Number 60

Explain how organizations select EHR systems.

Definition

Explanation should include

- knowledge of the request for proposal (RFP) process
- key stakeholders involved in EHR system selection and the roles each play
- examples of the categories of project costs when selecting vendor-specific EHR systems
- the financial components that strengthen an EHR system vendor
- the key steps in the selection process for choosing a vendor.

Process/Skill Questions

- What is an RFP?
- Who are the key stakeholders in an EHR system selection?
- What are the key steps in the selection process of an EHR system?

Task Number 61

Describe the EHR functionality of a results review.

Definition

Description should include

- computerized provider order entry (CPOE)
- documentation
- messaging among different vendor systems
- billing.

Process/Skill Questions

- What characteristics are necessary to meet documentation requirements in an EHR?
- How should the EHR facilitate intradepartmental communication?
- What are simulated EHR educational simulation resources?

Task Number 62

Demonstrate knowledge of system and database architectures used in commercial EHR systems.

Definition

Demonstration should include the

- health information systems landscape (e.g., CPOE, pharmacy, lab)

- different EHR hardware platforms (e.g., servers, mainframes, mini-computers)
- different EHR operating systems and databases (e.g., Windows, UNIX)
- importance of security, privacy, auditing, and performance monitoring in EHR systems.

Process/Skill Questions

- What are some of the database systems used in EHRs?
- What are the most common hardware platforms?
- What are the main components of each EHR platform?

Exploring Usability and Human Factors

Task Number 63

Explain the importance of technology in health care.

Definition

Explanation should include

- contributions of human-computer interaction to the health field
- Donald Norman's theory of action and the seven stages of user activity

  1. Forming the goal
  2. Forming the intention
  3. Specifying an action
  4. Executing the action
  5. Perceiving the state of the world
  6. Interpreting the state of the world
  7. Evaluating the outcome

- knowledge of principles of user-centered design, methods of cognitive research, and sources of usability evidence
- the principles of user-centered design to address the challenges to effective design
- usability evaluation methods
- various types of errors in medicine
- patient safety issues in the workplace and at home.

Process/Skill Questions

- What are examples of technology-related errors in medicine?

- What are the potential consequences if the health professional enters inaccurate information in the EHR?
- What are the futuristic influences of technology in health care?

HOSA Competitive Events (High School)

> **Health Science Events**
>
> o Knowledge Test: Medical Law and Ethics

Task Number 64

Explain key elements of customer service in health IT.

Definition

Explanation should include

- definition of *customer service*
- customers' needs based on context
- different metrics to measure customer service in healthcare IT
- disability etiquette's contribution to professional communication
- appropriate use of personal communication devices in the healthcare workplace
- potential results of inappropriate use of personal communication devices in the healthcare workplace.

Process/Skill Questions

- Who are health IT customers?
- What do health IT customers want?
- What are examples of disability etiquette in health care?

SOL Correlation by Task

Describe the evolution of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).	English: 11.5, 12.5 History and Social Science: VUS.13, WHII.14
Explain consumer rights under HIPAA.	English: 11.5, 12.5
Outline the HIPAA Privacy Rule.	English: 11.6, 12.6
Describe the Security Rule.	English: 11.5, 12.5

Examine laws and regulations regarding the Privacy Rule and HIPAA.	
Examine the enforcement of the Privacy and Security Rules and the penalties for noncompliance.	History and Social Science: VUS.13
Describe cybersecurity measures related to HIPAA.	History and Social Science: VUS.13
Research special topics in health information privacy.	English: 11.8, 12.8 History and Social Science: WHII.14
Describe a business associate per the Privacy Rule.	English: 11.3, 12.3
Explain the principles of PHI.	English: 11.5, 12.5 History and Social Science: VUS.13, WHII.14
Describe the general principles for use and disclosure under the Privacy Rule.	English: 11.3, 11.5, 12.3, 12.5 History and Social Science: VUS.13
Describe permitted use and disclosure.	
Describe authorized use and disclosures.	English: 11.5, 11.6, 11.8, 12.5, 12.6, 12.8
Activate Privacy and Security Training Games.	
Outline the process of migration to an EHR.	English: 11.6, 11.8, 12.6, 12.8
Summarize the migration path from a paper health record to an EHR.	English: 11.5, 12.5
Describe clinical decision support systems.	
Configure an EHR system to achieve features required for meaningful use.	
Describe the concepts of privacy and security as applied to the EHR.	History and Social Science: WHII.14
Describe the most common commercial EHR systems used in ambulatory and inpatient care settings.	English: 11.5, 12.5
Describe the Certification Commission for Health Information Technology (CCHIT) and its role in the certification of commercial EHR systems.	English: 11.5, 12.5
Explain how organizations select EHR systems.	English: 11.5, 12.5
Describe the EHR functionality of a results review.	English: 11.1, 12.1
Demonstrate knowledge of system and database architectures used in commercial EHR systems.	History and Social Science: WHII.14
Explain the importance of technology in health care.	English: 11.5, 12.5

	History and Social Science: WHII.4
Explain key elements of customer service in health IT.	English: 11.3, 11.5, 12.3, 12.5

Teacher Resource

[AFA CyberPatriot](#) is the National Youth Cyber Education Program created by the Air Force Association to inspire K-12 students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future. At the core of the program is the National Youth Cyber Defense Competition, the nation's largest cyber defense competition that puts high school and middle school students in charge of securing virtual networks.

Appendix: Credentials, Course Sequences, and Career Cluster Information

Industry Credentials: Only apply to 36-week courses

- Electronic Health Record Certification (EHRC) Examination
- Health Informatics Assessment

Concentration sequences: *A combination of this course and those below, equivalent to two 36-week courses, is a concentration sequence. Students wishing to complete a specialization may take additional courses based on their career pathways. A program completer is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program.*

- Cybersecurity Fundamentals (6302/36 weeks)
- Health Informatics (8338/36 weeks)

Career Cluster: Health Science	
Pathway	**Occupations**
Health Informatics	**Bioinformatics Technician** **Health Information Specialist** **Health Information Technician** **Medical Information Technologist**

Career Cluster: Information Technology	
Pathway	**Occupations**
Information Support and Services	**Computer Support Specialist** **Information Systems Security Manager**
Network Systems	**Computer Security Specialist** **Information Security Analyst**
Programming and Software Development	**Informatics Nurse Specialists**