Georgia CTAE

Applications of Health Information Technology (25.496) (2022)

Adopted 2022

Applications of Health Information Technology (25.496)

HS-AHIT-1. Demonstrate employability skills required by business and industry. HS-AHIT-1

1. Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities. HS-AHIT-1.1
2. Demonstrate creativity by asking challenging questions and applying innovative procedures and methods. HS-AHIT-1.2
3. Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations. HS-AHIT-1.3
4. Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity. HS-AHIT-1.4
5. Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills. HS-AHIT-1.5
6. Present a professional image through appearance, behavior and language. HS-AHIT-1.6

HS-AHIT-2. Design a mobile application and demonstrate utilization in a medical setting. HS-AHIT-2

1. Design a mobile app using a simulated mobile app tool. HS-AHIT-2.1
2. Demonstrate (in a simulated setting) training a healthcare provider how to teach a patient to utilize the mobile app. HS-AHIT-2.2
3. Research devices used for remote patient monitoring. HS-AHIT-2.3

HS-AHIT-3. Examine the information technology services in hospitals and the major functional categories. HS-AHIT-3

1. Differentiate between hospital-based IT and provider offices and other medical facilities IT systems. HS-AHIT-3.1
2. Explain the basic hospital IT infrastructure. HS-AHIT-3.2

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3. Evaluate a hospital IT organization and leadership and the clinical staff and hospital leadership (CEO, COO, CFO, and Chief Medical Informatics Officer (CMIO). HS-AHIT-3.3
4. Explain the variety of IT services in a hospital. HS-AHIT-3.4
5. Describe the major functional categories of HIT in hospitals and the related applications including the administrative, financial, and clinical. HS-AHIT-3.5

HS-AHIT-4. Demonstrate the three main groups of HIT applications in hospitals including the clinical functions of HIT in a simulated format. HS-AHIT-4

1. Examine the administrative functions of HIT, including ADT (Admissions, Discharge, Transfer), and enterprise-wide scheduling. HS-AHIT-4.1
2. Evaluate the financial functions of the HIT, including charge capture, revenue cycle, and patient accounting. HS-AHIT-4.2
3. Research the clinical functions of HIT including: / a. hospital departmental information systems / b. hospital electronic prescription and pharmacy system, medication dispensation challenges, and robotic dispensation / c.medical imaging and radiology systems / d. laboratory information system HS-AHIT-4.3
4. Investigate the concept and role of the clinical decision support systems in HIT. HS-AHIT-4.4
5. Evaluate HIT applications for physicians and nurses at bedside, including the following: / a. medical diagnosis / b. Computerized Physician Order Entry (CPOE) / c. computer-based patient record system / d. nursing applications and documentation / e. planning and outcome identification / f. nursing care plan with effective documentation and charting. HS-AHIT-4.5
6. Investigate medication administration, including the following: / a. what can go wrong / b. the right method of medication administration / c. process automation. HS-AHIT-4.6

1. **Research the functionality and role of the Electronic Health Record (EHR) system, including major features and components, impact on patient safety and outcomes, and the benefits and implementation challenges.** HS-AHIT-5.1

HS-AHIT-6. Evaluate health information flow and differentiate open systems interoperability and closed isolated systems. HS-AHIT-6

1. Describe what is meant by open systems and interoperability versus closed isolated systems. HS-AHIT-6.1
2. Discuss the role of data repositories and the challenges with incoming data sources. HS-AHIT-6.2
3. Describe health information flow in a fully integrated, open environment, as well as the role of EHR in this structure. HS-AHIT-6.3

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HS-AHIT-7. Adhere to patient privacy, security, and confidentiality regulations. HS-AHIT-7

1. Describe the concept and importance of patient privacy, security and confidentiality including the following: / a. HIPPA security regulations / b. protected health information and how to protect them / c. security program model / d. risk assessment and management / e. risk identification and mitigation HS-AHIT-7.1

HS-AHIT-8. Evaluate the challenges associated with implementation of the Health Information Exchange, CCDs (Continuity of Care Documents) and CCRs (Continuity of Care Record). HS-AHIT-8

1. Research the concept and practice of Health Information Exchange (HIE), CCDs, and CCRs. HS-AHIT-8.1
2. Explain the challenges in implementing the Health Information Exchange (HIE). HS-AHIT-8.2
3. Describe how to overcome the connectivity issues between heterogeneous systems and data exchange challenges. HS-AHIT-8.3
4. Describe the role of standards such as Health Level 7 (HL-7), Digital Imaging and Communications in Medicine (DICOM), and solutions such as Service Oriented Architecture (SOA). HS-AHIT-8.4

HS-AHIT-9. Assess the HIT project life cycle and the role of HIT project management. HS-AHIT-9

1. Investigate the process and challenges of HIT system acquisition and implementation. HS-AHIT-9.1
2. Explain the role and importance of project management. HS-AHIT-9.2
3. Evaluate a HIT project life cycle. HS-AHIT-9.3
4. Identify the HIT project management components and stages. HS-AHIT-9.4
5. Explain project planning, work breakdown structure, and scheduling. HS-AHIT-9.5
6. Describe the formal process of requirements identification, RFP preparation, assessment, evaluation, implementation strategies, and risk management. HS-AHIT-9.6
7. Explore project management concepts including "waterfall development," SCRUM development, and Lean Development. HS-AHIT-9.7

HS-AHIT-10. Evaluate the effectiveness and success of a successful telemedicine program. HS-AHIT-10

1. Assess the telehealth industry and growth in Georgia and across the United States. HS-AHIT-10.1
2. Evaluate nonclinical applications of telehealth. HS-AHIT-10.2

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3. Research the integrative strategies that bring these two modalities, telemedicine and telehealth, together for a more connected care / patient medical home model(s). HS-AHIT-10.3
4. Demonstrate (through simulation) appropriate video conferencing etiquette, proper record keeping and presenter skills used in a telemedicine presentation. HS-AHIT-10.4
5. Evaluate the necessary set-up of a telemedicine presenting/patient site and the medical provider site. HS-AHIT-10.5
6. Perform (in a simulated lab setting) or observe clinical telemedicine applications, and proper storage and forwarding techniques of a telemedicine conference. HS-AHIT-10.6

HS-AHIT-11. Demonstrate technical skills necessary for working with electronic health records. HS-AHIT-11

1. Perform (simulated in a lab setting) or observe (in a health IT company or healthcare facility) skills related to utilization of hospital electronic health records and other health IT platforms including: / a. eMAR / b. patient charting / c. reporting / c. ePrescribing / d. patient demographics HS-AHIT-11.1

HS-AHIT-12. Evaluate the value of health analytics. HS-AHIT-12

1. Analyze what clinical data can reveal about a patient's health status. HS-AHIT-12.1
2. Assess the use of health analytics and the potential for a move to personalized medicine. HS-AHIT-12.2
3. Evaluate how technology can be used to enhance the overall healthcare experience. HS-AHIT-12.3