

# CompTIA Healthcare IT Technician (HIT-001)

## Course Overview

This course will teach students about healthcare IT fundamentals, the medical environment, using IT in the medical workplace, healthcare IT technical components, providing medical IT support, and security.

<b><u>Course Introduction</u></b>	1m
Course Introduction	
<b><u>Lesson 01 - Healthcare IT Fundamentals</u></b>	33m
Topic A: Core Concepts in Healthcare IT	
Healthcare IT Concerns vs. Traditional IT	
PHI	
Types of Health Records	
EMR and EHR	
HIPAA	
Topic B: EMR/EHR Issues	
Key Features and Uses of EHR	
Benefits of EHR	
Other EHR Effects on Medical Stakeholders	
PHRs	
Stakeholder Requirements to Consider	
Topic C: Regulations, Standards, and Stakeholders	
Federal Organizational Stakeholders	
Medicare	
Parts of Medicare	
Medicaid	
Private Health Insurers	
Laws and Regulations	
Meaningful Use	
The Meaningful Use Process	
Components of Meaningful Use	
Stages of Meaningful Use	
Eligible Providers	
Covered Entities	
Topic D: HIPAA Controls and Compliance	
Medical Record Controls	
HIPAA Compliance	
HIPAA Security and Privacy Rules	
ROI Requirements	
Permissions Within Healthcare IT	
Lesson 01 Review	

## **Lesson 02 - The Medical Environment**

40m

Topic A: Healthcare Organizations  
Types of Hospitals  
Other Types of Healthcare Organizations  
Inpatient Treatment  
Outpatient Treatment  
General Departments in Healthcare Organizations  
Specialized Departments in Healthcare Organizations  
Basic Medical Workflow  
IT-Based Enhancements to Medical Workflow  
Topic B: Medical Terminology, Equipment, and Software  
Medical Terminology  
Trauma Center Levels  
Controlled Substance Levels  
Types of Medical Equipment  
Medical Office Equipment  
Types of Medical Software  
Topic C: Medical Coding and Billing  
Medical Coding  
CPT  
ICD-10  
SNOMED CT  
NDC ID  
E/M Codes  
Medical Billing  
EMR/EHR Outbound Communication  
ROI Departments  
Billing Clearinghouse  
Topic D: Medical Computer Interfaces  
Medical Interfaces  
HL7  
Standard Components of HL7  
CCR  
CCD  
PACS  
e-Prescribing  
Medication Reconciliation  
The Medication Reconciliation Process  
Bedside Medication Verification  
The Bedside Medication Verification Process  
Allergy Interactions  
Formulary Checking  
Lesson 02 Review

## **Lesson 03 - Using IT in the Medical Workplace**

43m

Topic A: Roles and Responsibilities  
Information Sensitivity and Clearance  
Break Glass Access  
Medical Personnel  
Medical Office Staff and Business Personnel

IT and Other Technical Roles  
Business Associates, Contractors, and Third Parties  
Working Within a Medical Team  
Topic B: Manage Communication and Ethics Issues  
Communication Skills  
Technical Communication Methods  
Professional Conduct  
Adapting to Varying Medical Environments  
Common Medical Environments  
Manage Communication & Ethics Issues  
Topic C: Legal Best Practices, Requirements, and Documentation  
Record Keeping and Documentation  
Time of Storage  
Important Medical Records  
Working with PHI  
Disposal of PHI  
Liability  
A Liability Waiver  
A BAA  
Third-Party Interactions  
Topic D: Medical Document Imaging  
Document Imaging  
Image File Types  
OCR  
The EMR/EHR Scanning Process  
Topic E: Sanitation Management  
When to Use Sanitation Techniques  
Proper Sanitation Techniques  
IT Equipment Sanitation  
Lesson 03 Review

**Lesson 04 - Healthcare IT Technical Components**

1h 32m

Topic A: Computing Essentials  
Essential Components of Computers  
Operating Systems  
Human Interface Devices  
A Medical Record Application  
Documentation  
Topic B: Networking  
Network Protocols  
Demo - Assigning TCP/IP Addresses  
Network Devices  
Network Cable Types  
Distributing IP Addresses  
DHCP Address Distribution  
Common Network Models  
Types of Networks  
Command Line Tools for Networking  
Demo - Ping  
Demo - Ipconfig

Demo - Tracert  
Topic C: Manage Servers and Software  
Programming Languages  
APIs  
Types of Servers  
An ISP  
Cloud Computing  
Virtualization  
Server Load and Utilization  
How to Manage Server & Software  
Demo - Event Viewer  
Demo - Baselines  
Topic D: Hardware Support  
Physical Interfaces and Connection Types  
Imaging Devices  
Mobile Devices  
Portable Storage Devices  
Supporting Mobile Devices  
WAP Basic Configuration Settings  
Router Installation and Configuration Settings  
Firewall Installation and Configuration Considerations  
Lesson 04 Review

### **Lesson 05 - Providing Medical IT Support**

1h 29m

Topic A: Set Up a Workstation  
Necessary Equipment  
Optional Equipment  
Software  
How to Set Up a Workstation  
Topic B: Troubleshoot Basic IT Issues  
Troubleshooting Network Issues  
Troubleshooting Computer and Accessory Hardware Issues  
Troubleshooting Portable Computers  
Troubleshooting Software Problems  
Topic C: Troubleshoot Medical IT Issues  
Identifying Support Resources  
Escalating Support Issues  
Integrating Medical Technology with Traditional IT Systems  
Troubleshooting Medical Devices  
Troubleshooting HL7 Problems  
Troubleshooting e-Prescriptions  
Troubleshooting Billing Software Issues  
Troubleshooting Lab Orders and Results  
How to Troubleshoot Medical IT Issues  
Topic D: Implementation of an EMR/EHR System  
EMR/EHR Implementation Goals  
The EMR Project Lifecycle  
Project Management Principles  
EMR Hosting Options  
EMR/EHR Clients

Structured Data  
Environment Size Considerations  
Funding  
The Software Vendor Selection Process  
EMR/EHR Hardware Considerations  
Secondary Software Dependencies  
Interoperability with Legacy Systems  
Implementation Strategies  
The Implementation Process  
Timing and Scheduling of Rollout Events  
Topic E: Change Control  
Why Control Change?  
Change Control Environments  
Change Control Considerations  
Lesson 05 Review

## **Lesson 06 - Security**

1h 29m

Topic A: Manage Physical and Logical Security  
Physical vs. Logical Security  
Common Security Risks  
Physical Access Controls  
Physical Security Threats and Vulnerabilities  
Types of Physical Access Controls  
Physical Security Considerations  
Logical Access Controls  
Security Users and Groups  
Permissions  
Encryption  
Uses for Encryption  
Removable Media Considerations  
Types of Malicious Software  
Types of Network Attacks  
How to Manage Physical and Logical Security  
Topic B: Implement Security Best Practices and Threat Mitigation Techniques  
Threat Prevention Methods  
Protecting Against Social Engineering  
Social Engineering Awareness  
Strong Passwords  
Communicating Passwords  
How to Implement Security Best Practices and Threat Mitigation Techniques  
Topic C: Manage Remote Access  
Remote Access  
Remote Access Protocols  
A VPN  
Advantages and Disadvantages of Remote Access  
How to Manage Remote Access  
Topic D: Manage Wireless Security  
Wireless Security  
Wireless Security Protocols  
Wireless Threats and Vulnerabilities

Best Practices for Wireless Networks  
How to Manage Wireless Security  
Topic E: Perform Backups and Disaster Recovery  
DRP  
Backup Uses  
Backup Types  
Backup Storage  
Secure Backup Transfer Methods  
How to Plan for Disaster Recovery  
Lesson 06 Review

**Total Duration:** 6h 27m