

GE Healthcare

Education Services

# Healthcare IT

## 2011 Technical Education



imagination at work

Healthcare IT Courses

Essentials of Healthcare IT<sup>SM</sup> ..... 1

Securing the Healthcare IT Environment<sup>SM</sup> ..... 2

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# Technical Education

## Education Centers

**Waukesha, WI** - The Healthcare Institute has expanded to include classrooms to support anesthesia classes and our new Healthcare IT curriculum.

**Madison, WI** - Our original center of learning for life support device education now includes our new Healthcare IT curriculum.

**Jupiter, FL** - Our center of excellence for patient monitoring product support now includes new classrooms featuring our new Healthcare IT curriculum and many GE product training classes.

**Remote Locations** - Periodically, we take classes to strategic locations for added customer convenience. Check our website for the most current list of classes [www.gehealthcare.com/training](http://www.gehealthcare.com/training).

**Hosting a Class** - If you have a group to train, consider hosting a class at your facility. Our instructors can bring a number of our courses to you for maximum flexibility and convenience. You eliminate travel expense and have the advantage of training multiple staff at the same time, which can reinforce learning.

### GE Health and Safety Policy

GE Healthcare requires students to wear closed-toe and closed-heel shoes while attending training. Safety toe-shoes are required, but steel-toe shoe covers are available in the classroom. Open-toe, high-heel shoes or sandals are not permitted.

## About Technical Education from GE Healthcare

GE Healthcare Education Services delivers technical education for Diagnostic Imaging, Computed Tomography, Magnetic Resonance, Mammography, Nuclear Medicine/PET, Ultrasound and X-Ray. Ultrasound, Monitoring, Diagnostic Cardiology, Infant Care and Anesthesia Delivery Systems and Respiratory products. We also offer a curriculum of Healthcare IT classes focused specifically on the needs of today's biomedical and technical professionals.

**Our goal** is to be recognized as the global leader in healthcare education solutions.

- Building customer knowledge and competencies through a diverse educational portfolio in an increasingly complex healthcare environment.
- Striving to exceed customer expectations by delivering exceptional quality education that is clinically relevant and has a measurable impact on practice.
- Be a provider of choice for Healthcare IT education regardless of medical equipment choices, previous learning or experience.

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## Added value for your education investment

College credit is available for many of our classes, both technical and Healthcare IT, through the University of Phoenix and DeVry University. If you are working toward a degree, or contemplating one, these classes may bring you closer to completion. Visit [www.gehealthcare.com/training](http://www.gehealthcare.com/training) and choose "College Credit for Technical Training" for more information on these programs.

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For your convenience, we now have one number to call for information on any course.

**1-888-799-9921**

# Student Information

## Registration Instructions

Registration is online. Go to [www.gehealthcare.com/training](http://www.gehealthcare.com/training) and choose the appropriate category for course schedules and registration link. Select your course and complete all information. Print a copy for your files before submitting. When done, click on Save and Submit to send registration form to a Training Coordinator.

## Who can Attend

Healthcare IT courses from GE Healthcare are open to any biomedical, technical or IT professional, regardless of equipment choice. These courses are tailored to provide a hands-on learning environment that focuses specifically on the knowledge base needed to manage workflow and connectivity in this rapidly changing environment.

### Policies and Terms

- Accepted via email or phone: 888-799-9921 or [edservices@ge.com](mailto:edservices@ge.com)
- Must be received 15 business days prior to the course start date
- A \$1,000 per week "no-show" or cancellation fee will be incurred if a student does not show up for class or does not cancel before the 15 business day window
- GE reserves the right to cancel or reschedule any class. GE will not be held responsible for any travel costs incurred due to causes beyond our control, such as, but not limited to, hurricanes, tornados, or strikes

### Attendance

- Students are required to arrive on time for class.
- Class start and end times vary. Please refer to your e-mail enrollment notification.
- A "no-show" is not eligible for tuition reimbursement.
- Students must pass an assessment to receive certificate of successful completion.

### Cancellations

- Must be received 15 business days prior to the scheduled start date.
- Accepted via e-mail or phone.
- Fee of 50% will be charged of total tuition for cancellations less than 15 days of the scheduled class date.

### Low Enrollment

GE Healthcare reserves the right to cancel classes due to low enrollment. Classes with low enrollment 15 business days prior to the scheduled date will be cancelled. Please consider this when booking your travel.

When GE Healthcare cancels a class, tuition will be refunded in full. Alternatively, tuition may be applied to the cost of another class scheduled to take place within 12 months of the original class.

GE Healthcare will not be held responsible for any travel costs incurred due to circumstances beyond our control, such as, but not limited to, hurricanes, tornados, or labor strikes.

## IT Pre-requisites

The following IT skills are required prior to enrollment.\*

|                                   |
|-----------------------------------|
| IP Addressing                     |
| Switch Troubleshooting            |
| Troubleshooting Wireless Networks |
| Subnetting                        |
| Router Configuration              |
| Network Connectivity              |
| Hard Drives                       |
| Access Control Lists              |
| Communication Paths               |
| Hardware Replacement              |
| Router Troubleshooting            |
| Network Troubleshooting           |
| Hubs                              |
| POST                              |
| Back-up Systems                   |
| Switch Port Configuration         |
| Access Point Configuration        |

\* Courses requiring Healthcare IT competency are identified on the course description page

## Accepted demonstration of Healthcare IT competency:

- CompTIA Network+®, Microsoft MCP®, or Cisco CCNA® certification
- Essentials of Healthcare IT<sup>SM</sup>
- Participants may complete a test to demonstrate IT competencies required for specific courses.

# Essentials of Healthcare IT<sup>SM</sup>

This instructor-led class is specifically designed for technical professionals responsible for the installation and support of medical devices and the networks interconnecting them. The class is taught by highly qualified technical trainers and will focus on developing the practical skills needed by a biomedical engineer to interface with networked devices in healthcare today. Extensive labs with plenty of hands-on time allows the student with no previous IT training to gain confidence in this new and exciting arena. The class will build and troubleshoot flat, switched, routed, and wireless networks.

**Note:** Our Healthcare IT courses may help enhance the IT skills of all participants regardless of medical equipment choices, previous learning or experience.

## Intended Audience

- Biomedical equipment technicians
- Biomedical and clinical engineers
- Biomedical and clinical engineering managers
- Medical technology managers
- Hospital IT staff
- Any professional who supports the field of medical technology



### Purchase Packages:

Tuition: \$3,850  
2030677-001, M1056773, or R0248PG

Tuition & Lodging: \$4,775  
2030677-002, M1118581, or R0249PG

Tuition, Lodging & Air: \$5,670\*  
2030677-003, M1118582, or R0250PG

\* US only

**Delivery Method:** Classroom

**Length of Course:** 5 days

### Course Location:

Please visit [www.gehealthcare.com/training](http://www.gehealthcare.com/training) for the most current information on dates and locations.

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## Securing the Healthcare IT Environment<sup>SM</sup>

This instructor-led class is specifically designed for technical professionals responsible for the secure transport of electronic protected health information across healthcare IT infrastructures. This class is taught by experts in the healthcare IT field and topics include: a global security overview, relevant HIPAA Title II Privacy and Security Rule information, the top 10 HCIT network attacks and ways to prevent them, strategies to mitigate risk, and securing a home network. Hands-on labs include password cracking, configuring biometric identifiers, encryption, port scanning, using network analyzers, software firewall configuration, performing an MD5 Hash, and home router configuration. Students will perform a risk analysis of medical devices using MDS2 documentation and ACCE/ECRI tools. Basic computer skills and TCP/IP network troubleshooting techniques are required.



### Intended Audience

- Biomedical equipment technicians
- Biomedical and clinical engineers
- Biomedical and clinical engineering managers
- Medical technology managers
- Hospital IT staff
- Any professional who supports the field of medical technology

#### Purchase Packages:

**Tuition:** \$5,000  
2020786-053, M1126775, or R0265PG

**Tuition & Lodging:** \$5,925  
2020786-054, M1126785, or R0266PG

**Tuition, Lodging & Air:** \$6,820\*  
2020786-055, M1126786, or R0267PG

\* US only

**Delivery Method:** Classroom

**Length of Course:** 5 days

#### Course Location:

Please visit [www.gehealthcare.com/training](http://www.gehealthcare.com/training) for the most current information on dates and locations.

#### Required IT Skills:

- GE Essentials of Healthcare IT or equivalent

For list of core IT skills, see chart on the Student Information page.

# Wireless in the Healthcare IT Environment<sup>SM</sup>

This class focuses on the installation, management, and troubleshooting of RF technologies in healthcare today; including WMTS, 802.11, RFID, and cellular communications. Topics include RF and antenna basics, common interference sources in healthcare, remote patient viewing using the Wireless Medical Telemetry Service (WMTS), 802.11 and access point configuration including wireless VLANs, RFID basics, cellular communications, and security requirements for wireless systems. Students receive hands-on training with network analyzers and spectrum analyzers, perform site surveys for WMTS and 802.11, and troubleshoot WMTS antenna systems.



## Intended Audience

- Biomedical equipment technicians
- Biomedical and clinical engineers
- Biomedical and clinical engineering managers
- Medical technology managers
- Hospital IT staff
- Any professional who supports the field of medical technology

### Purchase Packages:

**Tuition:** \$5,000  
2020786-050, M1126782, or R0268PG

**Tuition & Lodging:** \$5,925  
2020786-051, M1126793, or R0269PG

**Tuition, Lodging & Air:** \$6,820\*  
2020786-052, M1126795, or R0270RG

\* US only

**Delivery Method:** Classroom

**Length of Course:** 5 days

### Course Location:

Please visit [www.gehealthcare.com/training](http://www.gehealthcare.com/training) for the most current information on dates and locations.

### Required IT Skills:

- GE Essentials of Healthcare IT or equivalent

For list of core IT skills, see chart on the Student Information page.

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## Essentials of HL7®

Regardless of a hospital's equipment choice, this class prepares the participant to configure and troubleshoot HL7. Focusing on V2.x, students will learn to use the HL7 standard as a reference source as well as vendor conformance documents to aid in interface design. Topics include the structure and encoding of common patient administration, order, results, and billing messages, as well as interface design, data mapping, and vocabulary. Common troubleshooting techniques will be discussed and class concepts will be reinforced through use of the HL7 Messaging Workbench software. This instructor-led course is open to anyone wanting a more in-depth insight into HL7, regardless of equipment choice in the healthcare environment.



## Intended Audience

- Biomedical equipment technicians
- Biomedical and clinical engineers
- Biomedical and clinical engineering managers
- Medical technology managers
- Hospital IT staff
- Any professional who supports the field of medical technology

### Purchase Packages:

**Tuition:** \$2,350  
2020786-167, M1183243, or R0344PG

**Tuition & Lodging:** \$2,905  
2020786-168, M1183244, or R0345PG

**Tuition, Lodging & Air:** \$3,800\*  
2020786-169, M1183246, or R0346PG

\* US only

**Delivery Method:** Classroom

**Length of Course:** 3 days

### Course Location:

Please visit [www.gehealthcare.com/training](http://www.gehealthcare.com/training) for the most current information on dates and locations.

# Essentials of DICOM®

This instructor-led course prepares the participant to become proficient in the installation, maintenance and troubleshooting of DICOM on digital imaging networks. Participants will learn to use the DICOM standard as a reference source, analyze conformance statements for predicting connectivity, configure and use DICOM simulators, and capture and analyze DICOM traffic using freeware tools like the DICOM Validation Toolkit.

## Intended Audience

- Biomedical equipment technicians
- Biomedical and clinical engineers
- Biomedical and clinical engineering managers
- Medical technology managers
- Hospital IT staff
- Radiologists
- Any professional who supports the field of medical technology



### Purchase Packages:

Tuition: \$3,500  
2020786-126, M1152065, or R0307PG

**Tuition & Lodging:** \$4,055  
2020786-127, M1152066, or R0308PG

**Tuition, Lodging & Air:** \$4,950\*  
2020786-128, M1152067, or R0309PG

\* US only

**Delivery Method:** Classroom

**Length of Course:** 3 days

### Course Location:

Please visit [www.gehealthcare.com/training](http://www.gehealthcare.com/training) for the most current information on dates and locations.

### Required IT Skills:

- GE Essentials of Healthcare IT or equivalent

For list of core IT skills, see chart on the Student Information page.

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GE Healthcare  
N16 W22419 Watertown Road  
Waukesha, WI 53186  
U.S.A.  
[www.gehealthcare.com](http://www.gehealthcare.com)

