GE Healthcare

Education Services

Patient Monitoring Technical Education



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technical service training tailored to fit your needs!

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, Monitoring, Diagnostic Cardiology, Infant Care and Anesthesia Delivery Systems and Respiratory products. We also offer a curriculum of Network Infrastructure and Protocols Training classes focused specifically on the needs of today's biomedical and technical professionals.

our goal

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 Network Infrastructure and Protocols Training education regardless of medical equipment choices, previous learning or experience.

registration instructions

Registration is online.

Go to 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.

for product technical - devices courses only:

Patient Monitoring and Diagnostic Cardiology, Life Support Solutions and Ultrasound. Please print the Technical – Devices Agreement & Employment Verification Form.

for healthcare IT courses only:

Essentials of Healthcare ITSM, Wireless in the Healthcare Environment[™], Securing the Healthcare IT EnvironmentSM, Essentials of DICOM[®], Essentials of HL7[®]. Please print the Non-Disclosure Agreement & Employment Verification Form.

confirmation of enrollment is sent automatically via email.

customer requirements:

If you are attending one of the classes listed below, please bring a laptop with you to access the electronic service manual during the course. The service manual is going to assist you in the class.

If you are unable to bring a laptop, please bring your service manual to class.

- ApexPro[™] CH
- ApexPro FH
- Carescape[™] B650
- Carescape B850
- Carescape B650/B850 Classes
- Clinical Information Center
- Clinical Information Center v5
- Case[™]/Cardiosoft[™]
- Dash[™] Series
- Enterprise Access with FH
- Enterprise Access with CH
- Image Vault™
- Integrated Patient Monitoring
- LOGIQ[™] i/e
- LOGIQ E9
- Laptop requirements: PC based (Non Mac) Windows XP Pro or Windows 7; Local Administrator access; Wireless network card (Optional for Internet Access); Wired Network card; DB 9 Serial port; CD ROM drive; Ability to disable any and all spy ware and virus scan programs; HyperTerminal or other terminal emulation software; USB Port; AC Power Cord; Internet Explorer 8 or greater; Adobe Reader 6.0 or greater; Latest Flash Plug in; Windows Media Player 10 or greater

Note: At the present time, laptops are not a requirement for any of the anesthesia training classes.

- LOGIO P3
- LOGIQ P5/P6
- LOGIO S8
- MUSE[™] 5D/5E
- MUSE 7
- MarsTM PC
- Mars v8
- Solar[™] 9500

- Voluson[™] E8/E6
- Voluson I
- Solar Series
- Vivid[™] E9
- Voluson S8/S6
- Vivid q/i

policies and terms

attendance

- Students are required to arrive on time for class.
- Class start and end times vary. Please refer to your e-mail enrollment notification.
- For no-shows (i.e, registered students who do not attend the class but do not cancel in advance of the class start date), there is a noshow fee of full course tuition.
- Students must pass an assessment to receive certificate of successful completion.

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.

cancellations

- Cancellations can be made by email or phone: edservices@ge.com or by contacting 888-799-9921.
- For cancellations made more than 3 weeks prior to the class start date, there is no cancellation fee.
- For cancellations made 7-15 business days prior to the class start date, there is a cancellation fee of 25% of course tuition. For cancellations made 1-6 business days prior to the class start date, there is a cancellation fee of 50% of course tuition.
- For no-shows (i.e, registered students who do not attend the class but do not cancel in advance of the class start date), there is a noshow fee of full course tuition.
- GE reserves the right to cancel or reschedule any class for any reason and at any time. 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.

order expiration

Diagnostic Imaging Courses -Training expires 24 months after order date.

Devices, Healthcare IT, and Ultrasound Courses -Training expires 18 months after order date.

use of media & recording devices

The Healthcare Institute's (HCI) policies prohibit the use of any unauthorized personal removable media and recording devices in any courses, classrooms, and labs without the express consent of GE Healthcare. This includes, but is not limited to the following:

- Cell phones
- Still Cameras
- Video or audio recording devices
- Any external hard drives (Network or other)
- Any form of memory cards including, but not limited to; CompactFlash card, Secure Digital card (SD card), or Memory Stick
- Any other flash read/write media
- Any other USB read/write media

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. MR courses require composite toe safety shoes. Open-toe, high-heel shoes or sandals are not permitted.

education centers

waukesha, wi

The Healthcare Institute has expanded to include classrooms to support anesthesia classes and our new Network Infrastructure and Protocols Training curriculum.

jupiter, fl

Our center of excellence for patient monitoring product support now includes new classrooms featuring our new Network Infrastructure and Protocols Training 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.

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.

pre-requisites

Many classes contain lecture and lab exercises requiring networking skills. The fundamentals of networking are not covered in products classes.

The following IT skills are required prior to enrollment*:

- IP addressing
- communication paths hardware replacement

• router troubleshooting

network troubleshooting

- switch troubleshooting
- troubleshooting wireless
- networks
- subnetting
- router configuration
- network connectivity
- hard drives
- access control paths
- back-up systems

• hubs

POST

- switch port configurations
- 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 ITSM
- Participants may complete a test to demonstrate IT competencies required for specific courses.

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

1-888-799-9921

ApexPro[™] Channelized (CH) Telemetry

This technical service class, for the ApexPro Channelized (CH) Telemetry system components, illustrates the practical skills needed to configure and troubleshoot the system. Participants are involved in clinical software navigation and the comprehension of software configuration and service tools. The course provides a detailed explanation of individual hardware and software and their integration and interconnectivity with other system components. Participants will analyze the RF environment with a spectrum analyzer, program patient transmitters, configure Telemetry Server software and remotely diagnose Server problems.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition:	
BT1125-001	\$8,355
Tuition & lodging:	
BT1125-005	\$9,280
Tuition, lodging & air:	
BT1125-010	\$10,175*
* US only	

delivery method

class/lab

length of course

5 days

pre-requisite recommended

Essentials of Healthcare ITSM or equivalent

program information

ApexPro[™] Frequency Hopping (FH) Telemetry

This technical service class, for the ApexPro Frequency Hopping (FH) Telemetry system components, illustrates the practical skills needed to configure and troubleshoot the system. Participants are involved in clinical software navigation and the comprehension of software configuration and service tools. The course provides a detailed explanation of the individual hardware and software components, their integration and interconnectivity with other system components. Through hands-on labs, participants will reload access point software, program patient transmitters, configure Telemetry Server software, and remotely diagnose Server problems.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition:	
BT1127-001	\$8,355
Tuition & lodging:	
BT1127-005	\$9,280
Tuition, lodging & air:	
BT1127-010	\$10,175*
* US only	

delivery method

class/lab

length of course

5 days

pre-requisite recommended

Essentials of Healthcare ITSM or equivalent

program information

Aware[™] Gateway V1.3

Aware Gateway provides a connection between the Unity® Network MC Network and the hospital enterprise network. It forms a data path so data residing on either network can be shared across the two networks. Since medical devices can exchange data with the Hospital Information System, Aware Gateway provides greater access to patient data, helping to reduce opportunity for errors and improve hospital productivity. This self-paced CD is designed to familiarize you with the key features and installation issues involved with the Aware Gateway. In addition, this course covers major service and troubleshooting topics and procedures.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition: 2020786-021

\$600

delivery method CD

length of course dependant on user

B30 Patient Monitor Online Technical Training

The B30 monitor technical education program is designed for those who support the B30 monitor the features of the monitor, how to service, install disassemble/reassemble and perform a functional checkout.



product number Tuition: 2020786-353

\$355

delivery method online

length of course 2 hours

B40 Monitor Technical Service Training

The B40 Patient Monitor Service Training class is designed to teach the overview, operation, installation, maintenance, service, and software update of theB40 monitors, E-miniC gas module, and the hemodynamic parameter module. It also introduces the use of the E-Entropy and CARESCAPE[™] Respiratory modules with the B40 v2 Patient Monitor.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers

course competencies:

upon successful completion of this course, the student should be able to:

- Install the B40 Monitor in a CARESCAPE or S/5 Network Environment
- Service the B40 Monitor
- Perform Planned Maintenance on the B40 monitor



product number

Tuition:	
2020786-329	\$2,275
Tuition & lodging:	
2020786-330	\$2,645
Tuition, lodging & air:	
2020786-331	\$3,540

delivery method virtual

length of course 2 days

aayo

pre-requisite recommended CARESCAPE Respiratory Modules Full Service Training (Web)

program information

Capnomac Ultima - DVD

Through the use of a video and workbook, students review the theory of operation of the various subsystems in the Capnomac Ultima monitor. Instruction on the use of the service screen for troubleshooting purposes is provided, as well as an outline for the planned maintenance procedures. It is recommended that students have the equipment available to work on while going through the program.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number Tuition:

7000-0001-507

\$935

delivery method DVD

length of course 3 hours

Cardiocap[™]/5 Online Distance Learning

The Cardiocap/5 technical class offers participants the opportunity to gain an understanding of the monitor's hardware, software, operation and communication. Participants will reinforce concepts and skills learned, by completing structured labs. Troubleshooting, repair, replacement, and planned maintenance are discussed and demonstrated.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition: 7000-0001-508

\$3,035

delivery method web-based, instructor-led

length of course 2 days

program information

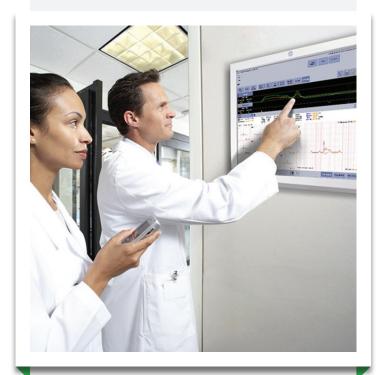
CARESCAPE[™] Central Station Differences Service Training

CARESCAPE Central Station CSCSv1 Differences Training is a webbased training course. This online differences course is targeted for experienced engineers who have taken one of the two prerequisite paths related to previous versions of the CICv5 and CIC Series Courses. The purpose of this training is to give a highlevel introduction to the system, highlighting what is unique and different.

course competencies:

upon successful completion of this course, the student should be able to:

- Explain the function of the CSCSv1 in a medical environment and know the services and systems the CSCSv1 integrates with on the CARESCAPE and medical center networks
- Identify all possible configurations of hardware and software for the CSCSv1
- List the product differences of the CIC Pro v5 unit and the CSCSv1 unit when questioned by medical center staff
- Use the CSCSv1 service tools to complete installation and configuration procedures
- Install required licenses to enable features for specific medical center location needs, i.e. "Physicians Review Station" or "Monitoring Station" configurations
- Preform all applicable tasks in the Field Service Manual to physically install a CSCSv1 unit, associated peripherals and network services
- Perform all applicable configuration procedures in the Field Service Manual to properly complete the installation off a CSCSv1 unit
- Navigate the CSCSv1 clinical application to resolve incorrect end user operation
- Navigate the CSCSv1 to set up multiple data sessions and collect full disclosure
- Analyze and successfully troubleshoot any hardware or software failures, using service documentation, and diagnostic tools
- Repair/Replace Field Replaceable Units (FRUs) on the CSCSv1 unit and its peripherals
- Perform system recovery from a catastrophic failure of the CSCSv1 unit
- Perform a software upgrade to the CSCSv1 unit using the appropriate tools
- Perform checkout procedures provided in the Field Service Manual to validate operation after installation or repair procedures or during planned maintenance



product number

Tuition: 2020786-313

\$935

delivery method online

length of course 4 hours

program information

CARESCAPE[™] Central Station Full Service Technical Training

The CARESCAPE Central Station v1 (CSCSv1) is a central stationmonitoring device that provides views of monitored information for up to 16 patients per Central. The CSCSv1 acts as a viewing station, review station and a live monitoring station by obtaining its information from acquisition devices off the Unity/ CARESCAPE network. The CSCSv1 has expanded 4 main feature group capabilities within the Central Station: Full Disclosure Enterprise, Centralized Monitoring, Respiratory review and ST Monitoring/ Review.

The CARESCAPE Central Station v1 Full Service Technical Training is Instructor Led classroom training which includes physical equipment and hands-on labs to support full service of the CSCSv1 product and is independent of any previous courses. Although students may be aware of the MP100, and some of the software features of previous products, this course will present comprehensive knowledge of the CARESCAPE Central Station v1.

course competencies:

upon successful completion of this course, the student should be able to:

- Explain the function of the CSCSv1 in a medical environment and know the services and systems the CSCSv1 integrates with on the CARESCAPE and medical center networks
- Identify all possible configurations of hardware and software for the CSCSv1
- List the product differences of the CIC Pro v5 unit and the CSCSv1 unit when questioned by medical center staff
- Use the CSCSv1 service tools to complete installation and configuration procedures
- Install required licenses to enable features for specific medical center location needs, i.e. "Physicians Review Station" or "Monitoring Station" configurations
- Perform all applicable tasks in the Field Service Manual to physically install a CSCSv1 unit, associated peripherals and network services
- Perform all applicable configuration procedures in the Field Service Manual to properly complete the installation off a CSCSv1 unit
- Navigate the CSCSv1 clinical application to resolve incorrect end user operation
- Analyze and successfully troubleshoot any hardware or software failures, using service documentation, and diagnostic tools
- Repair/Replace Field Replaceable Units (FRUs) on the CSCSv1 unit and its peripherals
- Perform system recovery from a catastrophic failure of the CSCSv1 unit
- Perform a software upgrade to the CSCSv1 unit using the appropriate tools
- Perform checkout procedures provided in the Field Service Manual to validate operation after installation or repair procedures or during planned maintenance



product number

Tuition:	
2020786-314	\$5,175
Tuition & lodging:	
2020786-315	\$5,730
Tuition, lodging & air:	
2020786-316	\$6,625*
*US only	

delivery method

class/lab

length of course

3 days

program information

CARESCAPE[™] Gateway v1 Online Technical Service Training

CARESCAPE Gateway v1 Technical Training is a web based training courses that cover the knowledge and skills needed to perform service procedures of the CARESCAPE Gateway v1 server. The base for this course is the information covered in CARESCAPE Gateway v1 Technical Manual and the Implementation Guide.

course competencies:

upon successful completion of this course, the student should be able to:

- Identify and list the features, options, and service tools of the CARESCAPE Gateway v1 server
- Use a laptop to remotely access the CARESCAPE Gateway v1 server
- Use service diagnostic tools for troubleshooting the CARESCAPE Gateway v1 server
- List the Field Replaceable Units available to order for repairs of the CARESCAPE Gateway v1 server
- Perform system checkout procedures to insure correct operation based upon preventative maintenance cycle identified by the Technical Manual
- Navigate Webmin and complete the steps provided in the Service Manual to properly configure advanced settings
- Navigate the LINUX OS and the Quovadx Application to view and update HL7 interface engine settings
- Contrast the difference between the previous Quovadx application available on the Aware[™] Gateway system to the version provided on the CSG
- Determine the status of the Quovadx interface by navigating the Cloverleaf Webmin Utility
- Classify the type of system failure by determining the InSite error code(s) generated
- Determine systems failures and software problems by interpreting logs files and referencing error messages presented in the Service Manual



product number

Tuition: 2020786-300

\$895

delivery method online

length of course 6 hours

pre-requisite recommended

It is highly recommended that students have completed the following to get the most out of this training course: Essentials of Healthcare ITSM and Essentials of HL7®

program information

CARESCAPE[™] Monitor B450 Differences Online Service Training

CARESCAPE Monitor B450 Differences Online Service Training is a web-based training course. The course is targeted for experienced students who have taken Instructor-Led service classes in CARESCAPE monitoring. The purpose of this training is to give an overview of the new CARESCAPE Monitor B450, especially how it compares to the CARESCAPE Monitor family of products. It will give the students information needed to maintain and repair the CARESCAPE Monitor B450.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers

course competencies:

upon successful completion of this course, the student should be able to:

- Demonstrate a working knowledge of CARESCAPE Monitor B450 system
- Apply safe work practices in the service environment for the Monitoring Solutions being serviced
- Execute install, service, maintenance, and checkout of unit
- Interpret diagnostics and troubleshooting information of the B450
- Locate FRUs, execute replacement
- Perform disassembly and reassembly procedures that aid repair
- Identify upgrades



product number Tuition:

2020786-338

\$835

delivery method online

length of course 3 hours

pre-requisite required

CARESCAPE Monitor B650 Difference Technical training -or-

CARESCAPE Monitor B650 Technical Service Training

program information

CARESCAPE[™] Monitor B450 Technical Service Training

The CARESCAPE Monitor B450 is a multi-parameter patient monitor intended for use in multiple areas and intra-hospital transport within a professional healthcare facility. The CARESCAPE Monitor B450 Technical Service Training course is intended to provide complete service training for the CARESCAPE B450 Monitor without relying on previous product knowledge of the B850 and B650 monitors as reference. This will include patient data acquisition modules compatible with the CARESCAPE B450 Monitoring system.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers

course competencies:

upon successful completion of this course, the student should be able to:

- Demonstrate a working knowledge of CARESCAPE Monitor B450 system
- Apply safe work practices in the service environment for the Monitoring Solutions being serviced
- Execute install, service, maintenance, and checkout of unit
- Interpret diagnostics and troubleshooting information of the B450
- Locate FRUs, perform disassembly and reassembly procedures that aid repair
- Complete a software download

EducationServices

product number

Tuition:	
2020786-339	\$5,990
Tuition & lodging:	
2020786-340	\$6,730
Tuition, lodging & air:	
2020786-341	\$7,655*
*US only	

delivery method

classroom

length of course

3 days

program information

CARESCAPE™ Monitor B650

The goal of the CARESCAPE Monitor B650 course is to teach the theory and operation of the CARESCAPE Monitor B650 in the wired and wireless network environment. This course provides hands-on experience using the Webmin service interface to configure default settings, activate the options and features licenses, perform the calibration procedures for supported hemodynamic parameter modules, and Airway Gas module. The CARESCAPE Monitor B650 course covers corrective maintenance, planned maintenance procedures, software transfer procedures, and service special tools.

Students will gain experience creating the wireless and wired networks the B650 Monitor will reside. Students will be actively involved in Information Technology discussions and activities that will help the student better understand how to troubleshoot the CARESCAPE Monitor B650, as well as the wired or wireless network, where the CARESCAPE Monitor B650 will reside.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition:	
2020786-231	\$7,925
Tuition & lodging:	
2020786-232	\$8,850
Tuition, lodging & air:	
2020786-233	\$9,745*
*US only	

delivery method

classroom

length of course

10 days

IT skills required

Essentials of Healthcare ITSM or equivalent

program information

CARESCAPE[™] Monitor B650 Differences

This 3 day course covers the differences between the B650 and B850 including installation, configuration and checkout for the CARESCAPE Monitor B650 and compatible module, displays and input devices. In addition, the class will teach how to connect and configure the B650 to the S/5 and CARESCAPE wired and wireless networks, Unity ID, InSite with ExC,and MUSE.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition:	
2020786-310	\$5,685
Tuition & lodging:	
2020786-311	\$6,240
Tuition, lodging & air:	
2020786-312	\$7,135

delivery method classroom

length of course 3 days

pre-requisite required

CARESCAPE B850

program information

CARESCAPE™ Monitor B850

The goal of the CARESCAPE Monitor B850 course is to teach the theory and operation of the CARESCAPE Monitor B850, use of Webmin service interface, configuration, licensing the options and features, calibration procedures for supported hemodynamic parameter modules, corrective maintenance, planned maintenance, maintenance procedures, software transfer procedures, and service special tools.

intended audience:

- biomedical equipment technicians
- biomedical engineers

course competencies:

upon successful completion of this course, the student should be able to:

- Provide an overview of CARESCAPE Monitor B850 system (CPU, Software, Displays, Input devices, Frames and RACs)
- Identify acquisition devices/modules that are compatible with CARESCAPE Monitor B850 (E-Modules, Tram Modules, Printer and Writers, iPanel, Unity Network ID)
- Recognize the system hazards and safety rules
- Configuration of CARESCAPE Monitor B850 and compatible peripherals and external devices
- Create Clinical Default Settings
- Identify system service strategy
- Identify Disassembly and Reassembly procedures
- Identify system hardware components to the FRU level
- Perform Maintenance and Checkout
- Perform Webmin diagnostics
- Calibrate the Gas calibration
- Calibrate the NIBP parameter
- Calibrate the IP parameter
- Calibrate the Temperature parameter
- Calibrate the ECG Analog output
- Calibrate the IP Analog output
- Calibrate the touch screen
- Perform Installation Checkout
- Perform System Maintenance

course equipment:

- CARSCAPE Monitor B850
- E-CAIOVPDM
- F5 and F7 Frames
- E-PRESTN
- E-PSM(P)

- Tram-Rac and TRAM Module
- 15 and 19 inch displays



product number

Tuition:	
2020786-193	\$8,295
Tuition & lodging:	
2020786-194	\$9,220
Tuition, lodging & air:	
2020786-195	\$10,115*
*US only	

delivery method

classroom

length of course

4.5 days

IT skills required

Essentials of Healthcare ITSM or equivalent

program information

CARESCAPE™ B650/B850 Monitor Hardware

The CARESCAPE B650/B850 Monitor Hardware Service Training course will introduce the B650 and B850 Patient Monitor platforms and their accompanying modules and peripherals. This Hardware Service Training will include hardware overview, User Interface navigation, troubleshooting, maintenance and checkout procedures on both B650 and B850 platforms. Some key topics that will be presented are theory and operation of the B650 and B850, use of Webmin service interface, configuration, licensing the options and features, calibration procedures for supported hemodynamic parameter modules, and special service tools.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers

course competencies:

upon successful completion of this course, the student should be able to:

- Recognize the system hazards and safety rules when servicing a B850/B650 monitor.
- Identify components of the B850 and B650 monitors.
- Identify acquisition devices and modules that are compatible with B850/B650.
- Configure a B850 and B650 with compatible peripherals and external devices.
- Identify FRUs for both B850 and B650 units.
- Perform Disassembly and Reassembly procedures for both B850 and B650 units.
- Perform Maintenance and Checkout procedures.
- Calibrate all features of the B850 and B650 monitors.
- Perform Webmin diagnostics and system troubleshooting.

equipment covered:

- B850 Patient Monitor
- B650 Patient Monitor
- PDM
- PSM
- Frame
- E-Modules



product number

Tuition:	
2020786-294	\$7,585
Tuition & lodging:	
2020786-295	\$8,325
Tuition, lodging & air:	
2020786-296	\$9,220*
*US only	

delivery method

classroom

length of course

4 days

IT skills recommended

Essentials of Healthcare ITSM or equivalent

program information

CARESCAPE[™] Respiratory Modules Full Service Training (Web)

CARESCAPE Respiratory Modules Full Service Training is a webbased training course. The course is targeted for experienced engineers who have taken instructor led service classes in monitoring. The purpose of this training is to give an in-depth look at respiratory modules that are compatible with GE modular monitoring systems. It will give the engineer information needed to maintain and repair the respiratory module. The training content covers CARESCAPE Respiratory Modules, E-sCAiOV, E-sCAiO, E-sCOV, and E-sCO.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number Tuition:

2020786-332

\$145

delivery method web

length of course 2 hours

program information

CARESCAPE[™] V100 Technical Course - Web

The CARESCAPE™ V100 monitor technical training course is designed to teach biomedical and technical personnel how to disassemble, configure, and service this monitor. This online, self-paced course takes the student through the disassembly of components in the CARESCAPE V100 monitor, as well as access and navigation of the Configuration Mode. Students also enter the Service Mode and perform the required test procedures.

intended audience:

- biomedical equipment technicians
- biomedical engineers



product number Tuition: 2020786-166

\$99

delivery method web

length of course 1 hour

program information

Clinical Information Center v5

This technical service class, for the Clinical Information Center (CIC) version 5 and peripherals, illustrates the practical skills needed to configure and troubleshoot the complete system. Participants are involved in basic clinical software navigation and the comprehension of software configurations to aid in troubleshooting clinical issues. Explanation of the individual hardware and software components, installation configuration procedures, planned maintenance procedures and troubleshooting techniques are provided to improve service skills. Learn about integration and interconnectivity with Patient Monitors and other Monitoring Solutions components to expand system capabilities. Participants will learn hands-on skills in labs designed to reinforce principles reviewed in class.

intended audience:

• Technical service personnel who have attended similar product training more than 2 years ago, new hire personnel and those that are looking for more advanced training on the Clinical Information Centers (CIC).

course competencies:

upon successful completion of this course, the student should be able to:

- Assess different configuration options relating to hardware and software for the CIC Version 5 system from material presented in the course.
- Explain the advantages of the product features provided with Version 5 software toward clinical efficiency.
- Assess required licenses to activate features required for specific hospital location clinical needs, i.e. "Physicians Review Station" vs. "Monitoring Station"
- Perform configuration procedures such as but not limited to; Installation with Webmin, Multi-KM, and Licensing.
- Demonstrate proficiency of course material through configuration and operational navigation hands-on labs.
- Analyze and successfully troubleshoot any failures, using service documentation, course material, and troubleshooting tools demonstrated during class.
- Explain repair/replacement procedures for Field Replaceable Units (FRUs) on the CIC Version 5 system from material presented in the course.
- Demonstrate proper use of all special tools and test equipment during all hands-on service procedures.
- Explain and demonstrate the Post Service checkout procedure to validate operation after installation, repair, or replacement procedures.



product number

Tuition:	
2020786-060	\$5,175
Tuition & lodging:	
2020786-061	\$5,730
Tuition, lodging & air:	
2020786-062	\$6,625*
*US only	

delivery method

classroom

length of course

3 days

IT skills required

The following skills are required for successful completion:

IP Addressing, Subnetting, Hard Drives, Hardware Replacement, Switch Troubleshooting, Router Configuration, Router Access Control Lists, Router Troubleshooting, POST, Network Connectivity, Communication Paths, Network Troubleshooting and Back-up Systems.

IT skills recommended

Essentials of Healthcare ITSM or equivalent

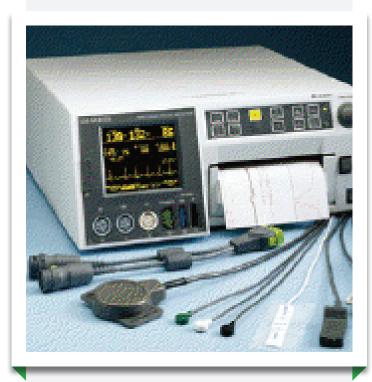
program information

Corometrics[™] 120 Series Maternal/ Fetal Monitors

The Corometrics 120 monitor interactive training CD provides a step-by-step review of the disassembly and assembly process. From the introduction of the parts down to the removal of the front bezel power switch, this interactive CD gives a comprehensive approach to servicing the 120 series.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition: 2022006-001

\$500

delivery method CD

length of course 1-2 hours

program information

Corometrics[™] 250 Series Maternal/ Fetal Monitors

The Corometrics 250 monitor interactive service training program provides participants a review on how to repair and maintain this product. The program starts with an overview of the differences between the 120 series and the 250 series. It then points out the major features of the monitor and provides a high level theory of operation. The majority of program demonstrates how to access and remove the field replaceable units (FRUs). Also included in the program are the maintenance suggestions and answers to frequently asked troubleshooting questions. This course can be completed with an interactive CD or as an online course.

intended audience:

- Biomedical equipment technicians
- Biomedical and clinical engineers



product number

Tuition Online:	
2020786-026	\$350
Tuition CD:	
2020786-022	\$500

delivery method online or CD

length of course 1-2 hours

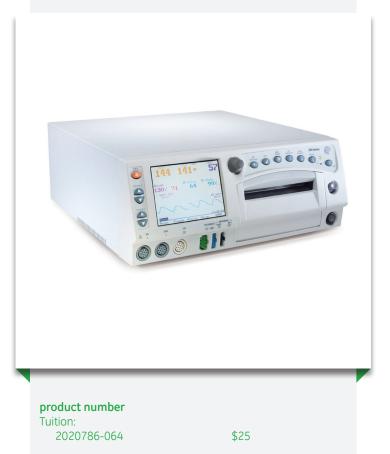
program information

Corometrics[™] 250cx Series for Technical and Clinical Professionals

This online course is designed to familiarize clinicians with the operation of the Corometrics® 250cx series monitors. Topics include a basic overview of the recording modes, setup screens, connecting the monitor to the patient and initiating fetal monitoring, as well as maintenance recommendations.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



delivery method online

length of course 1 hour

CRITIKON[™] Pro Series CD

The CRITIKON self-paced course is designed for biomedical engineers and biomedical technicians who work with the Dinamap Pro Series Monitors (100-400). The course allows you to view the materials in English, Spanish, French or German. Using videos and narration to explain the service process, the course covers service mode access, pre-service test procedures, NIBP check and calibration, and disassemble and assemble instructions.

intended audience:

- Biomedical equipment technicians
- Biomedical and clinical engineers



product number

Tuition: CD-1146

\$100

delivery method CD

length of course dependant on user

program information

Dash[™] 2500

The Dash 2500 technical training program is designed to teach service personnel how to service and install the Dash 2500 monitor. It also covers how to disassemble/reassemble the monitor, perform a functional checkout and basic troubleshooting tips.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number Tuition:

2020786-078

\$350

delivery method web

length of course 4 hours

program information

Dash[™] Series Technical Service Training (web)

This web based technical service class for the DASH Series products and peripherals illustrates the practical skills needed to configure and troubleshoot the complete system. Participants are involved in basic clinical software navigation and the comprehension of software configuration and service tools via simulated labs and videos. The course provides a detailed explanation of the individual hardware and software components, planned maintenance procedures and troubleshooting techniques to improve service skills. Learn about integration and interconnectivity with Dashport2, RAC2A, Unity Network ID, and other Monitoring Solutions components to expand system capabilities. Participants will use simulated labs and videos that are designed to reinforce the learners experience.

intended audience:

- Biomedical equipment technicians
- Biomedical and clinical engineers

course competencies:

upon successful completion of this course, the student should be able to:

- Navigate and configure the devices
- Perform the System Maintenance requirements
- Perform the steps necessary to reload software
- Identify the Field Replaceable Units
- Identify the steps necessary for Disassembly and Assembly of the devices
- Identify various troubleshooting techniques

equipment covered:

- Dash 3000, 4000 and 5000 Monitors
- Dashport2
- RAC2A
- Unity ID



product number

Tuition: 2020786-344

\$3.195

delivery method web

length of course 20 hours

Enterprise Access with CH

The GE Enterprise Access CH course is designed to provide technical training on the Enterprise Access system architecture and reactive service procedures and tools. Training encompasses Mobile Services (Cell800, LMR800, SMR900 and PCS1900), ApexPro[™] Telemetry CH and WLAN (802.11a/b/g).

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers

EducationServices

product number

Tuition:	
2020786-189	\$8,685
Tuition & lodging:	
2020786-190	\$9,240
Tuition, lodging & air:	
2020786-191	\$10,135'
*US only	

delivery method

classroom

length of course

3 days

IT skills recommended

Essentials of Healthcare $\mathsf{IT}^{\mathsf{SM}}$ or equivalent Wireless in the Healthcare IT $\mathsf{Environment}^{\mathsf{SM}}$

additional pre-requisite

ApexPro[™] CH

program information

Enterprise Access with FH

The GE Enterprise Access FH course is designed to provide technical training on the Enterprise Access system architecture and reactive service procedures and tools. Training encompasses Mobile Services (Cell800, LMR800, SMR900 and PCS1900), ApexPro[™] Telemetry FH and WLAN (802.11a/b/g).

intended audience:

- Biomedical equipment technicians
- Biomedical and clinical engineers

EducationServices

product number

Tuition:	
2020786-186	\$8,685
Tuition & lodging:	
2020786-187	\$9,240
Tuition, lodging & air:	
2020786-188	\$10,135*
*US only	

delivery method

classroom

length of course

3 days

IT skills recommended

Essentials of Healthcare $\mathsf{IT}^{\mathsf{SM}}$ or equivalent Wireless in the Healthcare IT $\mathsf{Environment}^{\mathsf{SM}}$

additional pre-requisite

ApexPro[™] CH

program information

FM Monitor

The FM patient monitor training program offers learners the opportunity to gain an understanding of the monitor's operation, communication and hardware. The course provide descriptions of the functional units that make up the patient monitor as well as troubleshooting, repair and replacement of the functional units. Students will reinforce concepts and skills learned by completing structured labs on the equipment.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers

Note: This class is offered by request only. Please contact 1-888-

799-9921 for more information.

EducationServices

product number

Tuition:	
M1072289	\$2,275
Tuition & lodging:	
M1118589	\$2,645
Tuition, lodging & air:	
M1118590	\$3,540*
*US only	

delivery method

instructor-led class or web-based training Students attend class at our Madison or Waukesha training facility or via an online tele-conference. On-site class sizes are managed to ensure an optimal student-instructor ratio and accessibility to equipment for hands-on labs. If students are taking the course online, they must provide their own equipment for class exercises.

length of course

2 days

program information

Integrated Patient Monitoring

This technical service class contains the Dash[™] and the Solar[™] patient monitors and the CICV5.1 Clinical Information Center products along with their peripheral components such as the Patient Data Module (PDM) and the PRN 50/50M. It is intended to teach the practical skills needed to configure and troubleshoot the system. Participants are involved in clinical software navigation and software configuration along with the application of service tools. The course provides a detailed explanation of the individual hardware and software components and their integration and interconnectivity with other system components. Participants learn hands-on skills through labs designed to reinforce principles covered in class.

Note: Only the latest versions of product hardware and software will be discussed in this class. For in-depth specific product technical service training please refer to the product specific classes.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers

course competencies:

upon successful completion of this course, the student should be able to:

- Assess different configuration options relating to hardware and software for the Patient Monitoring products and update as required.
- Explain the Patient Monitoring products software and hardware.
- Demonstrate proficiency in the configuration and operational navigation.
- Analyze and successfully troubleshoot any failures, using service documentation, course material, and troubleshooting tools demonstrated during class.
- Discuss repair/replacement procedures for Field Replaceable Units (FRUs).
- Demonstrate proper use of all special tools and test equipment during all hands-on service procedures.
- Perform calibrations as required for service and Planned Maintenance.
- Explain and demonstrate the Post Service checkout procedure to validate operation after installation, repair, or replacement procedures.

equipment covered:

- Dash with version 6.8 (or greater) software
- Solar 8000i/8000M
- Patient Data Module (PDM)
- PRN-50M
- Clinical Information Center (CIC) version 5.1 (or greater) software

product number

produc	L Hum
Tuition	

luition:	
2030677-007	\$7,965
Tuition & lodging:	
2030677-008	\$8,890
Tuition, lodging & air:	
2030677-009	\$9,785*
*US only	

delivery method

classroom

length of course

5 days

IT skills required

The following skills are required for successful completion: IP Addressing, Subnetting, Hardware Replacement, Switch Troubleshooting, Network Connectivity, and Network Troubleshooting.

IT skills recommended

Essentials of Healthcare ITSM or equivalent

program information



iPanel v2 Clinical & Admin Training CD

The iPanel v2 software course combines clinical and technical education on one convenient CD. The clinical module guides clinicians on how to view clinical applications on the hospital network obtained from patient monitoring systems and the patient's electronic medical record.

The technical module instructs technical professionals on installing and configuring the iPanel software, clinical applications, monitors and computer.

intended audience:

- Biomedical equipment technicians
- Biomedical and clinical engineers



product number Tuition:

2020786-019

\$200

delivery method CD

length of course 1 hour

program information

S/5 Anesthesia & Compact Monitors

Participants in the Anesthesia and Compact Monitors class will receive a brief clinical overview of monitored parameters. Lectures will detail the operation, software configuration, hardware and communication of the monitors. Extensive hands-on labs are designed to reinforce the concepts learned during lecture.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition:	
7000-0001-416	\$5,755
Tuition & lodging:	
M1118605	\$6,495
Tuition, lodging & air:	
M1118606	\$7,390*
*US only	

delivery method

class

length of course

4 days

program information

Solar™ 9500

The Solar 9500 Class focuses on the operation and troubleshooting of the Solar 9500 Monitoring System and peripherals, illustrating the practical skills needed to configure and troubleshoot the system. Participants are involved in software navigation and the comprehension of software configuration and service tools. The course provides a detailed explanation of the individual hardware and other system components.

intended audience:

- biomedical equipment technicians
- biomedical and clinical engineers



product number

Tuition:	
BT1049-100	\$5,285
Tuition & lodging:	
BT1049-101	\$5,840
Tuition, lodging & air:	
BT1049-102	\$6,735*
*US only	

delivery method

class

length of course

3 days

IT skills recommended

Essentials of Healthcare ITSM or equivalent

program information

Solar™ Series

This technical service class for the Solar 8000i/8000M products and peripherals, illustrates the practical skills needed to configure and troubleshoot the complete system. Participants are involved in basic clinical software navigation and the comprehension of software configuration and service tools. The course provides a detailed explanation of the individual hardware and software components, planned maintenance procedures and troubleshooting techniques to improve service skills. Participants learn about integration and interconnectivity with Tram® & Rac®, and Patient Data Modules (PDM), Transport Pro v2, Unity Network® ID and other Monitoring Solutions components to expand system capabilities. Participants will learn hands-on skills in labs designed to reinforce principles reviewed in class.

Note: The Solar Series class does not include CIC/CIC v.5 instruction. For more information, please see course descriptions for CIC and CIC v.5.

intended audience:

- Biomedical equipment technicians
- Biomedical and clinical engineers



product number

Tuition:	
2030677-011	\$7,595
Tuition & lodging:	
2030677-012	\$8,520
Tuition, lodging & air:	
2030677-013	\$9,415*
*US only	

delivery method

class

length of course

4 days

IT skills recommended

Essentials of Healthcare ITSM or equivalent

program information

Essentials of Healthcare ITSM

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. Basic computer skills 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



product number

Tuition:	
2030677-001	\$4,250
Tuition & lodging:	
2030677-002	\$5,175
Tuition, lodging & air:	
2030677-003	\$6,070*
*US only	

delivery method

class

length of course

4 days

program information

Please visit www.gehealthcare.com/training for the most current information on dates and locations.

Bring this class to your location. Call for pricing and details: 888-799-9921

Securing the Healthcare IT EnvironmentSM

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



product number

Tuition:	
2020786-053	\$5,000
Tuition & lodging:	
2020786-054	\$5,925
Tuition, lodging & air:	
2020786-055	\$6,820*
*US only	

delivery method

class

length of course

5 days

IT skills required

Essentials of Healthcare ITSM or equivalent

program information

Wireless in the Healthcare IT EnvironmentSM

This vendor-neutral 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



product number

Tuition:	
2020786-050	\$5,000
Tuition & lodging:	
2020786-051	\$5,925
Tuition, lodging & air:	
2020786-052	\$6,820*
*US only	

delivery method

class

length of course

5 days

IT skills required

Essentials of Healthcare ITSM or equivalent

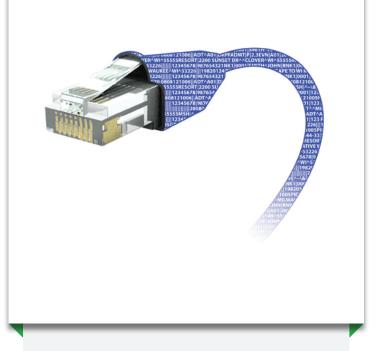
program information

Essentials of HL7®

This vendor-neutral class prepares the student 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



product number

Tuition:	
2020786-167	\$2,350
Tuition & lodging:	
2020786-168	\$2,905
Tuition, lodging & air:	
2020786-169	\$3,800*
*US only	

delivery method

class

length of course

3 days

program information

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



product number

Tuition:	
2020786-126	\$3,500
Tuition & lodging:	
2020786-127	\$4,055
Tuition, lodging & air:	
2020786-128	\$4,950*
*US only	

delivery method

class

length of course

3 days

IT skills required

Essentials of Healthcare ITSM or equivalent

program information



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