



Training and Development Center Masters of Applications

CUSTOMER TRAINING CLASSES BROCHURE 2003 TABLE OF CONTENTS

Introduction to the Training and Development Center	3
MR8CUBASIC - MRI Basic Principles	4
MR8CUSYNMR - syngoMR Applications	5
MR8CUSPEC - Introduction to MR Spectroscopy: Basic Concepts and Applications	6
CT8CUSYNSS - Syngo/CT Applications Single-Slice	7
CT8CUSYNMS - Syngo/CT Applications Multi-Slice	8
CT8CUSYN16 - Syngo/CT Applications Sensation 10/ 16/Cardiac.....	9
CT8CULEO - CT Advanced Applications Course (Leonardo)	10
CN8CUBASIC - SIENET Basics.....	11
CN8CU300 – MV300/WEB.....	12
CN8CUADV – SIENET Advanced.....	13
CN8SUMV – MagicView Super Users.....	14
CN8SUAS – Archive Applications for Super Users	15
AX6CATHADV - CATHCOR Advanced User Course.....	16
AX6ACOMNETCA - ACOM NET Supervisor.....	17
AX6ACOMWEBCA - ACOM WEB Supervisor.....	18
NM8ESOFT – PET ESOFT	19



Introduction to the Training and Development Center

Contacts

For registration, accommodations or any questions regarding training, please call **1-800-888-SIEM (7436) option 4** for assistance. All fax registration forms should be sent to 1-919-468-7401. You may also visit our website at: <http://siemensmedical.com> > Professional Education. You may then select either Technical Service or Clinical Applications training for full details. Fax registration forms are available online.

Location

The Training & Development Center is located at 209 Gregson Drive, Cary, NC 27511, and is approximately 20 minutes southeast of Raleigh – Durham airport.

Invitations

Early registration (at least 6 – 8 weeks prior to the course start date) is strongly recommended due to the limited class size. Fax registration forms are available online. An invitation will be sent within two business days of receipt of the registration if there is room in the class. The invitation serves as the confirmation of the course registration. If you have not received an invitation – DO NOT make any travel arrangements. Some courses have a wait list once the maximum class size has been reached. You will be notified if seats become available.

Accommodations

Your invitation will contain instructions for your accommodations reservation.

Dress Code

The dress code is business casual; no jeans, tee shirts, shorts, sneakers or open-toed shoes, please.

Cancellation Policy

Cancellation of registration may be made without penalty up to 10 business days prior to the first day of the course. Cancellation with less than 10-days notice will result in 50% of the tuition payable. Cancellation 48 hours prior to the first day of the course or failure to attend the course will result in forfeiture of the entire tuition amount. If you are unable to attend the course you are registered for, you may select a co-worker to attend in your place, provided all course prerequisites are met.



MR8CUBASIC - MRI Basic Principles

Course Number/Designator

MR8CUBASIC

Course Description

The MRI Basic Principles course is a one-week class covering the basic physics underlying MRI. A systematic and thorough description of the physical principles is provided, with basic operation of the SyngoMR MAGNETOM scanner described and demonstrated in class. The classroom setting provides an optimal environment for learning without distractions and ample opportunity for questions and answers. The course content is chosen and organized to allow the students to learn both basic principles and advanced concepts in a systematic and coherent fashion and to understand their integration on the MAGNETOM scanner.

Upon completion of this course participants will be able to:

Explain the physical principles of Magnetic Resonance Imaging.

Explain the general concepts of image contrast.

Understand the operation of basic and advanced clinical applications of MRI as implemented on the MAGNETOM.

Recognize the major components of the MAGNETOM MR system.

Audience

The MRI Basic Principles course is designed for MR technologists who will be operating a MAGNETOM MR scanner in a hospital or outpatient center.

Course/Skill Prerequisites

No prior MR experience is necessary.

Course Information

- ❑ Classes begin at 8:30 AM each day and end at 5:00 PM Monday through Thursday and at 12:00 PM on Friday.
- ❑ **Tuition:** US \$2000. CE Credits: 30 hours, Category A
- ❑ **Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.



MR8CUSYNMR - syngoMR Applications

Course Number/Designator

MR8CUSYNMR

Course Description

The syngoMR Applications course is a four-day class introducing the user interface of the common syngo software as implemented on the MAGNETOM. This is a hands-on course, utilizing simulation consoles to demonstrate basic system operation. Demonstrations and lectures of typical operations such as measurement protocol creation and exam parameter cards, image archiving, viewing and filming, and 3D image processing are included. A description of basic computer networking and DICOM as implemented in typical imaging facilities is presented.

Upon completion of this course participants will be able to:

- Operate the Exam, Viewing, Filming, 3D, and Mean/Curve functions on a syngoMR-based MAGNETOM scanner.
- Configure the different menus on a syngoMR-based MAGNETOM scanner.
- Understand the basic principles of computer network operation and workflow of patient examinations.
- Create and modify examination programs.
- Transfer and Archive functions
- Create and save protocols

Audience

The syngoMR Applications course is designed for MR technologists who will be operating a syngoMR-based MAGNETOM in a hospital or outpatient center.

Course/Skill Prerequisites

Attendance at MR8CUBASIC course or a passing grade on MR assessment examination.

Course Information:

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- Tuition:** US \$2800. CE Credits: 21 hours, Category A 22.5 hours, (Florida)
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.



MR8CUSPEC - Introduction to MR Spectroscopy: Basic Concepts and Applications

Course Number/Designator

MR8CUSPEC

Course Description

The Introduction to MR Spectroscopy: Basic Concepts and Applications course is a two and one-half day class describing the basic principles of MR Spectroscopy as implemented on the MAGNETOM Symphony system. It is intended to provide the MR technologist with the knowledge and ability to perform MR spectroscopic studies as part of the regular MRI examination. The course covers both the data collection aspects and post-processing options. Six months of experience in the operation of the Symphony system and at least two years of experience in routine clinical MRI are required.

Upon completion of this course participants will be able to:

- Understand the principles and technical requirements underlying the clinical use and application of MR Spectroscopy.
- Be proficient in the operation of the Symphony MR Spectroscopy measurement software and be able to acquire good quality spectra in reasonable measurement times.
- Process the acquired spectra and understand the post-processing steps and their influence on the final MR spectrum.
- Interpret typical MR spectra with respect to normal brain metabolites and recognize examples of their variations with certain pathologies.
- Recognize spectral artifacts.

Audience

The Introduction to MR Spectroscopy: Basic Concepts and Applications course is designed for MR technologists who will be performing spectroscopic studies on a SyngoMR MAGNETOM MR scanner.

Course/Skill Prerequisites

Six months of experience in the operation of the syngoMR Symphony system and at least two years of experience in routine clinical MRI are required.

Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- **Tuition:** US \$2100 CE Credits: 13 hours, Category A
- **Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.



Single-Slice CT Syngo Course

Course Description

This is a course for CT Technologists to introduce the CT basics and the common Syngo software as implemented in the Siemens Medical Solutions Single-Slice CT products. Operation of the CT scanner is described and demonstrated in class and in hands-on laboratory sessions. Understand the relationship between the various possible selections available of scanning parameters and their effect on the clinical image. The classroom setting provides an optimal environment for learning without distractions and many opportunities for questions and answers.

Upon completion of this course, participants will be able to:

- Register a patient and maneuver the Browser on a Syngo based CT scanner
- Operate the Viewing, Filming and 3D processing functions (e.g. MPR, MIP, SSD)
- Appreciate the Examination card on basic principles to scan including scan protocol customization
- Demonstrate and describe system components and hardware
- Comprehend CT image quality

Audience

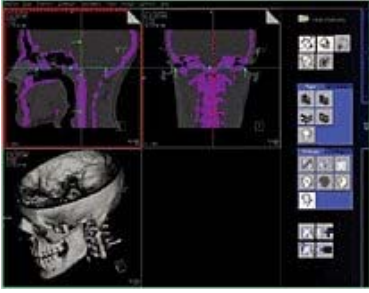
The Syngo/CT Applications Single-Slice course is designed for CT technologists who will be operating a Single-Slice CT scanner in a medical imaging facility.

Course/Skill Prerequisites

No prior CT experience is necessary.

Course Information

- _ Classes begin at 8:30 AM each day and end at 5:00 PM, except 12:00 PM on the last day
- _ **Tuition:** US \$2800; CE Credits awarded based on completion of full 3.5-day course
- _ **Registration:** Submit registration form online



Basic Multi-Slice CT Syngo Course

Course Description

This is a course for CT Technologists to introduce the CT basics and the common Syngo software as implemented in the Siemens Medical Solutions Multi-Slice CT products. Operation of the CT scanner is described and demonstrated in class and in hands-on laboratory sessions. Understand the relationship between the various possible selections available of scanning parameters and their effect on the clinical image. The classroom setting provides an optimal environment for learning without distractions and many opportunities for questions and answers.

Upon completion of this course, participants will be able to:

- Register a patient and maneuver the Browser on a Syngo based CT scanner
- Operate the Viewing, Filming and 3D processing functions (e.g. MPR, MIP, SSD)
- Appreciate the Examination card on basic principles to scan including scan protocol customization
- Demonstrate and describe system components and hardware
- Comprehend CT image quality

Audience

The Basic Multi –Slice CT Syngo course is designed for CT technologists who will be operating a Multi – Slice CT scanner in a medical imaging facility.

Course/Skill Prerequisites

No prior CT experience is necessary.

Course Information

_ Classes begin at 8:30 AM each day and end at 5:00 PM, except the last day ends at 12:00PM

_ **Tuition:** US \$2800; CE Credits awarded based on completion of full 3.5-day course

_ **Registration:** Submit registration form online



Advanced Multi-Slice CT Syngo Course

Course Description

This course is intended for the experienced CT Technologists to expand their basic CT Syngo knowledge as implemented in the Siemens Medical Solutions Multi-Slice CT products. A series of focused lectures has been designed to concentrate on specific topics in depth. Hands – on workstation training will be provided. The classroom setting offers an optimal environment for learning without distractions and many opportunities for questions and answers.

Upon completion of this course, participants will be able to:

- ❑ Appreciate latest soft ware configuration
- ❑ Demonstrate and describe system components and hardware
- ❑ Comprehend post-processing and scanning theory and its relationship in 3D anatomy
- ❑ Expand knowledge in the latest 3D post-processing concepts in CTA imaging using various post processing methods (e.g. MIP, VRT, InSpace)
- ❑ Understand basic concepts of cardiac imaging (Calcium Scoring)

Audience

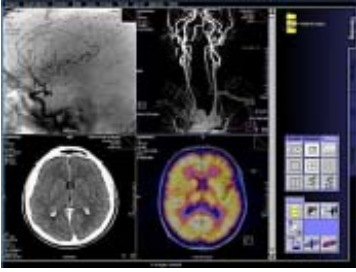
The Advanced Multi-Slice CT Syngo course is designed for CT technologists who will be operating a Multi – Slice CT scanner in a medical imaging facility.

Course/Skill Prerequisites

This course is designed for the technologist who already has experience with a Siemens Syngo CT scanner. Six months of CT Syngo experience is required.

Course Information

- _ Classes begin at 8:30 AM each day and end at 5:00 PM.
- _ **Tuition:** US \$2100; CE Credits awarded based on completion of full three-day course
- _ **Registration:** Submit registration form online



CT Advanced Applications Course (Leonardo/Wizard)

Course Description

This course, for the physicians and technologists, will provide a comprehensive review with the latest post-processing computer technology. The course content is chosen to allow the students to learn advanced concepts in a systematic and coherent fashion. A combination of classroom based exercises and hands on training provide ample instruction in a superior learning atmosphere. The classroom setting provides an optimal environment for learning without distractions and many opportunities for questions and answers. Clinical speakers provide focused lectures and share the latest concepts in body imaging.

Upon completion of this course, participants will be able to:

- ❑ Recognize anatomy and pathology in the 3D environment.
- ❑ Comprehend post-processing and scanning theory and its relationship in 3D anatomy.
- ❑ Expand knowledge in the latest post-processing concepts in CTA imaging (head, neck, abdomen and chest including heart) using various post processing methods (e.g. MIP, VRT).
- ❑ Acknowledge the latest concepts in evaluating chest imaging (LungCare) and GI imaging (virtual Colonography).

Audience

This course is designed for the primary technologist and physician who will be responsible for the clinical operation of the Leonardo/Wizard workstation.

Course/Skill Prerequisites:

Experience with common Syngo platform is preferred.

Course Information

- _ Classes begin at 8:30 AM each day and end at 5:00 PM.
- _ **Tuition:** US \$2100; CE Credits awarded based on completion of full three-day course
- _ **Registration:** Submit registration form online



CN8CUBASIC - SIENET Basics

Course Number/Designator

CN8CUBASIC

Course Description

CN8CUBASICS is a five-day course designed to instruct and familiarize customers with the tools used for day-to-day maintenance and operation of their PACS network. This course will supply the site system administrator with the basics for system configuration, use of the application for soft copy reading, daily maintenance of the archive device, and overall system workflow.

Upon completion of this course participants will be able to:

- analyze and maintain their network as far as workflow
- provide staff education on MagicView series workstation operation
- maintain MagicStore series systems
- understand Clinical Networking concepts
- assist and continue with system integration and implementation
- provide for a smooth integration and implementation of Siemens

Audience

- System Administrators for PACS systems who do not attend Workflow Design
- Department Directors/Managers who do not attend Workflow Design

Course/Skill Prerequisites:

- Basic knowledge of radiology departmental concepts
- Good communication skills

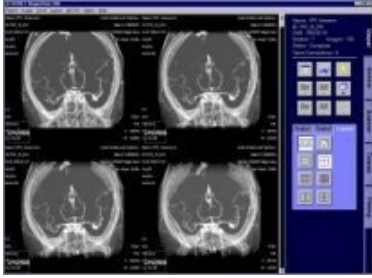
Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- Tuition:** US \$3500 CE Credits: 29.5 hours, Category A
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.

Course Dates

Jan 6 -10	June 9 -13
Jan 13 -17	July 21- 25
Jan 24 - 28	Sept 15 -19
March 24 - 28	Oct 13 - 17
April 28 - May 2	

Additional classes may be added if necessary to meet customer demand



CN8CU300 – MV300/WEB

Course Number/Designator

CN8CU300

Course Description

This three and a half day course teaches the SIENET user how to configure and maintain their MagicView 300 and Magic Web products. It covers the basics of operating the units software applications as well as the creation of user accounts, groups and privileges. Included in this course is an overview of basic Windows NT/2000.

Upon completion of this course participants will be able to:

- Understand the basics of Windows NT/2000
- Operate the application software for both the MV300 and the Magic Web
- Call up images
- Manipulate images
- Compare between studies
- Query for patients
- Configure User accounts, privileges on both products
- Configure User groups for viewing of images
- Configure Worklists, etc. for enhanced workflow

Audience

- System Administrators for the MV300 and MWeb at PACS sites

Course/Skill Prerequisites

- Possession/purchase of a MagicWeb Server and MagicView 300

Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- Tuition:** US \$2800 CE Credits: 21.5 hours, Category A
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.

Course Dates

Jan 21-24	June 24-27
March 11-14	Aug 5-8
April 22-25	Sept 30-Oct 3
May 13-16	Oct 28-31

Additional classes may be added if necessary to meet customer demand



CN8CUADV – SIENET Advanced

Course Number/Designator

CN8CUADV

Course Description

CN8CUADV is a four and one half day course designed for customers who have purchased Siemens Clinical Networking products. The course begins by reviewing concepts previously learned so as to help the administrator to optimize their current PACS system. It continues on into Basic Unix, Remote Diagnostics, and Basic Troubleshooting with information on numerous error corrections. Lab sessions will provide “hands-on” work with these products and will reinforce the concepts presented.

Upon completion of this course participants will be able to:

- Understand and adjust for workflow changes that affect the PACS environment
- Utilize basic unix commands
- Understand basic network topologies
- Perform routine remote diagnostic maintenance
- Understand and correct for typical error messages that occur within the PACS system

Audience

- System Administrators
- Super Users with enhanced user privileges (based on site policies)

Course/Skill Prerequisites

- Successful completion of CN8CUAPPS: System Concepts, Integration and Implementation Strategies or Successful completion of the Course Entrance Examination
- Strong computer background
- Two-Three months experience with SIENET PACS equipment

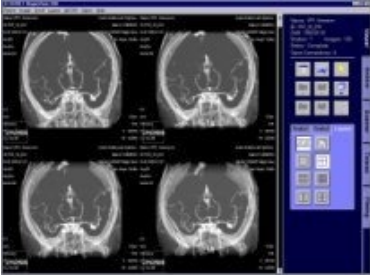
Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- **Tuition:** US \$3500 CE Credits: 29.5 hours, Category A
- **Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.

Course Dates

Feb 17-21
 July 14-18
 Nov. 10-14

Additional classes may be added if necessary to meet customer demand



CN8SUMV – MagicView Super Users

Course Number/Designator

CN8SUMV

Course Description

CN8SUMV is a four-day course designed to assist sites in maintaining their MagicView workstation and instruction of their staff in the application software associated with the MagicView 1000U and 1000W product. It will enable the user to be able to design or tailor their system to their site's individual needs for day to day use and enhance what they will learn from their on site Application Specialist.

Upon completion of this course participants will be able to:

- Use the workstation to view, annotate, evaluate and save Patient exams
- Create various display modes for image viewing
- Create text formats for image viewing
- Create print layouts for printing of images on film, paper, etc.

Audience

- Individuals assigned at a PACS installation to maintain a particular MV1000 workstation
- Individuals from CT/MR/Angio Sites with MagicViews as second consoles

Course/Skill Prerequisites

- Ownership of a MagicView 1000 workstation

Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- Tuition:** US \$2800 CE Credits: 21 hours, Category A
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.

Course Dates

Jan 27-30
 May 19-22
 Sept 8-11
 Dec 15-18



CN8SUAS – Archive Applications for Super Users

Course Number/Designator

CN8SUAS

Course Description

CN8SUAS is a one and one half day course covering the actual workings of the archive device on a day-to-day basis, its daily, weekly, monthly database maintenance and its role within the PACS environment.

Upon completion of this course participants will be able to:

- Distinguish between and IMS and PDIR(S) database
- Back up databases
- Maintain the jukebox
- Maintain Patient Database
- Rename patients
- Merge folders
- Change patient demographics
- Delete/Undelete exams
- Perform Daily, Weekly, Monthly Database Maintenance

Audience

- Individual(s) assigned at PACS sites to maintain and operate an Archive Device

Course/Skill Prerequisites

- Possession/purchase of a MagicStore and other storage device e.g. jukebox, deep archive

Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- Tuition:** US \$1400 CE Credits: 12 hours, Category A
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.

Course Dates

Jan 30-31
May 22-23

Sept 11-12
Dec 18-19



AX6SENSISADV - AXIOM Sensis Advanced User Course

Course Number/Designator

AX6SENSISADV

Course Description

The AXIOM Sensis Advanced User Course is a four-day class designed to provide an understanding of the necessary skills to completely manage a AXIOM Sensis hemodynamics and information system. Additionally, participants have the opportunity to meet other users and share their experiences and solutions to various challenges of catheterization lab documentation. Ample time is allowed for questions and answers.

Upon completion of this course participants will be able to:

- Answer all concerns applicable to AXIOM Sensis and other software options.
- Perform advanced operations and applications of the AXIOM Sensis System.
- Tailor AXIOM Sensis Parameters, Database, Dictionaries and Options to meet customer specific needs.
- Create Microsoft Word® Report Templates
- Understand and manage AXIOM Sensis Security Manager

Audience

Nurses, cardiovascular and radiology technologists and other allied health professionals who work with AXIOM Sensis clinically, as well as administratively.

Course/Skill Prerequisites

Have knowledge and be comfortable in performing a routine left-heart catheterization on the Siemens AXIOM Sensis recording system.

Each participant should have Microsoft Windows experience,

Microsoft Word for Windows knowledge a must.

Each participant is recommended to bring a current backup for tailoring and administration on a familiar database.

Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- Tuition and accommodations:** US \$2550 CE Credits: Submitted
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.



AX6ACOMNETCA - ACOM NET Supervisor

Course Number/Designator

AX6ACOMNETCA

Course Description

The ACOM NET Supervisor course is a two-day class covering the daily maintenance and operation of the ACOM NET System. Lectures include such topics as block diagram overview of the ACOM NET system, clinical operation, supervisor responsibilities check sheet, and supervisor console log on with details of all supervisor functions for the server, juke box ACOM M and ACOM P.C. clients. Lab sessions provide an opportunity for "hands-on" training in system operation, software configurations, database management, supervisor daily maintenance checks and media handling.

Upon completion of this course participants will be able to:

- Understand the operations of the ACOM NET functions and image data flow in a clinical environment.
- Perform daily checks through the supervisor computer.
- Change and maintain database backup tapes.
- Analysis of patient image database archive task completion.
- Recognize system deficiencies and utilize guidelines available through the supervisor web tool to take action for service reporting.
- Add or removal of MO disk media to juke box.
- Review work list tasks.
- Network deletion of Patient image data.

Audience

The ACOM NET Supervisor course is designed for the hospital personnel with the responsibilities of daily maintenance checks and database review.

Course/Skill Prerequisites

Experience in operation and daily use of the ACOM NET system and Cardiac Special Procedures lab workflow.

Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- Tuition:** US \$2000 CE Credits: 10.5 hours, Category A
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.



AX6ACOMWEBCA - ACOM WEB Supervisor

Course Number/Designator

AX6ACOMWEBCA

Course Description

The ACOM WEB Supervisor course is a two-day class covering the daily maintenance and operation of the ACOM WEB. Lectures include such topics as block diagram overview of the ACOM WEB system, clinical operation, supervisor responsibilities check sheet, and supervisor console log on with details of all supervisor functions for the web server. Lab sessions provide an opportunity for "hands-on" training in system operation, software configurations, database management and supervisor daily maintenance checks.

Upon completion of this course participants will be able to:

- Understand the operations of the ACOM WEB functions and image data flow in a clinical environment.
- Perform daily checks through the supervisor computer.
- Analysis of patient image database for web transfers and access.
- Correction of patient data for web transfers and access.
- Recognize system deficiencies and utilize guidelines available through the supervisor web tool to take action for service reporting.
- Add or removal of Patient image data for web transfers and access.
- Review work list tasks.
- Delete deletion of Patient image data over a network.

Audience

The ACOM WEB Supervisor course is designed for the hospital personnel with the responsibilities of daily maintenance checks and web access for Patient image data review.

Course/Skill Prerequisites

Experience in operation and daily use of the ACOM NET or ACOM WEB system and Cardiac Special Procedures lab workflow.

Course Information

- Classes begin at 8:30 AM each day and end at 5:00 PM.
- Tuition:** US \$2000 CE Credits: Submitted
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.



NM8ESOFT – PET ESOFT

Course Number/Designator

NM8ESOFT

Course Description

e.soft Pet is designed as an initial class for Pet users who have purchased e.soft PET for their PET System. This course is designed to enable the user to utilize the new features including Fusion and e.soft PET. It also covers e.soft Basics and Flexible Display which allows them to tailor their system to the site's individual needs. SUV calculation and Esoft Fusion are also covered in the course. The course also addresses topics such as Syngo viewer, Syngo 3D, Syngo Fusion, and Dicom in greater detail, this course enhances what the customer will learn from their onsite Applications Specialist. The e.soft PET course is four days.

Upon completion of this course participants will be able to:

- Utilize features to perform Fusion with other modalities
- Perform SUV calculations
- Perform basic Esoft functions
- Modify workflows
- Create flexible displays

Audience

The PET Esoft class is designed for Nuclear Medicine, or PET technologists, who will be operating a PET Esoft system in a hospital or outpatient center.

COURSE/SKILL PREREQUISITIES

- Prior Nuclear Medicine or PET experience

COURSE INFORMATION

- Classes begin at 1:00 PM first day and end at noon on Thursday.
- Tuition:** US \$2800 CE Credits: Submitted
- Registration:** Fax a registration form (available online) to 1-919-468-7401 or call 1-800-888-SIEM (7436) opt 4.