

Application training CT

Training Programme



This application CT training programme includes the basic CT technology curriculum, operation and use of the CT scanners possibilities and modern technologies, the instruments and technologies for patient dose adaptation and reduction, planning and adjusting of scanning protocols depending on patient type and scanned organ for optimum dose and image quality, image post processing technologies, image adjustment, reconstruction, and all software tools and applications for image processing.

At the end of the application training week – covering 40 hours of application training, a completed checklist of topics covered will be given to the trained specialists

Some additional topics may need to be shown in future follow up trainings as per the request of the users. This will be discussed as the training week progresses.

If at the end of the training week you would like a certificate of application training, please supply a list of names of the attendees and inform your application specialist. They will arrange the certificates to be forwarded on to you.

SYSTEM OVERVIEW

AREA COVERED

2 hours

1

	System Components
	Switch On / Off
	Procedures after power interruption
	Procedure after Emergency Stop
	Full Power Down
	Gantry Controls & contact pads
	Table Controls
	Accessories
	Warm Up
	Resets
	In room monitor / video splitter
	HD 50% Full Message / Disk management
	Manual table release
	Cleaning / disinfection and use of covers

KEYBOARD, MOUSE AND MONITORS

AREA COVERED

1 hour

2

	Keyboard controls Function keys
	Abort / Scan buttons
	Preset WW / WL
	Talk / Hold scan
	Store / Erase / Filming
	Use of microphone
	Voice to scan timing button
	Emergency stop button
	Mouse combinations
	Monitor on/off and security

USER INTERFACE - SCAN CONSOLE

AREA COVERED

2 hours

3

	Date and Time edit
	Study directory and management
	Reconstruction Queue
	Transfer Queue / Filming Queue
	Archive Queue
	Table / Gantry movement / iStation
	Scan Modes
	Autoview S / M +Applications
	Raw Data Reconstruction
	Tube heat (OLP) / Power Save

USER INTERFACE – DISPLAY CONSOLE (WHEN APPLICABLE)

AREA COVERED

4 hours

4

	Autoview-M
	MPR
	Load Exams
	MIP / Average / MinIP
	Application tabs 1 / 2 / 3
	Batch MPR
	Mouse / keyboard functionality
	3D
	Load Exams
	Preset page
	Applications tabs 1 / 2 / 3
	Bone removal
	Key frame movie
	Mouse / keyboard functionality
	Manual adjust / Save presets
	Clinical
	Load Exams
	Brain
	Cardiac
	Lung
	Abdomen
	Dual Energy
	General
	^{SURE} Subtraction
	Report tab
	Raw Data handling
	Import / Export DVD-R(AM)

PATIENT REGISTRATION

AREA COVERED

0.5 hour

	Manual Registration
	Input form HIS/RIS
	Emergency Patient
	Protocol Locations
	Protocol Naming
	Tab "Detail"
	Examination Info presets (Tool)

UTILITY - TOOL

AREA COVERED

0.5 hour

	Drop-down menu
	Tool
	Tab Main Utility
	Tab Protocol
	Tab Engineering
	Tab Service Engg

UTILITY SCAN CONSOLE AND DISPLAY CONSOLE

AREA COVERED

2 hour

7

	Image Data Utility
	Raw Data Utility
	Info Change
	Reconstruction options
	Exam Plan Utility
	Background Processes
	Set up Utility
	Maintenance Utility
	Warm Up Options
	Calibration
	Back Up Tool
	Multiview – Anet
	Shutdown

SURE TECHNOLOGIES AND OPTIONS

AREA COVERED

4 hours

8

	SURE ^{IQ}
	SURE ^{Exposure}
	SURE ^{Start}
	Intermittent SURE ^{Start}
	SURE ^{Subtraction}
	Dental
	BMS
	CBP
	Cardiac Functional Analysis
	Coronary Artery
	Calcium Score

STANDARD EXAM PLANS

AREA COVERED

4 hours

9

	Head Scan and View
	Head Helical
	Head with and without contrast

	Neck with contrast
	Spine – all areas
	Thorax HRCT
	Thorax with contrast
	Abdomen with preset delay
	Abdomen multiphase
	CTA Head
	CTA Neck
	CTA Body
	CTA Peripheral
	Sinuses

ADVANCED EXAM PLANS

AREA COVERED

8 hours

10

	Volume Mode
	Wide Volume Mode
	Dynamic Volume Mode
	Volume ECG – Calcium Score
	Volume ECG – CTA/CFA
	Volume ECG – Prospective CTA
	Time Sequence Display
	Dose Guard
	4D Display in MPR and 3D
	4D Brain Perfusion
	4D Brain Perfusion Display mode
	4D DSA Tool
	Calcium Score
	Coronary Analysis
	CFA
	Neuro ONE protocol
	4D / CTA Combi Protocol
	Test Bolus
	Stroke Work-up
	Move and Shoot
	Body Perfusion

EXECUTION OF SCANNING

AREA COVERED

5 hours

11

	Selection of appropriate Exam Plan
	Scanogram
	Vari-area
	^{SURE} Start
	^{SURE} IQ

	G&G scanning
	SURE ^{EX} Exposure
	CT Dose and considerations for different anatomic regions and patients
	CT Dose, noise textures and image quality trade-offs
	Anatomical Puppet HF & FF etc
	Planning scan areas and positions
	Start scan A / P / G
	Delays
	Editing protocol parameters
	Protocol optimisation methods based on patient type and body organ
	Breath commands on / off / edit
	Activation of additional recons
	Activation of Multiview
	Use of Helical Skip
	Use of Abort Button
	Scan plan button
	Repeat Examination
	Quit Examination
	Next Patient

RAW DATA HANDLING

AREA COVERED

1 hour

	Selection of Patient and series
	Helical Parameters
	Use of MUSCOT and TCOT
	Image Selector – Start/End
	Slice Thickness selection
	Recon Interval
	FC
	Application of RASP
	User Filters
	Archive Destinations
	VFF / VFH
	Selection and setting ROI
	Size/Zoom of ROI, X/Y coordinates
	Play/Reverse

MULTI PLANAR REFORMATION (MPR) ADDITIONS

AREA COVERED

2 hours

13

	Selection of images
	Display Format
	Switching Patients
	Navigation of MPR

	Identification of areas A/B/C
	WW/WL
	Images thickness
	Pan/Rotate/Zoom
	Oblique MPR + View orientation
	Movie Generation
	Curved MPR
	Image Save
	Utility
	Removal of cursor
	MaxIP / MinIP
	Oblique MPR
	Keyboard controls MPR
	Batch MPR
	Spine MPR
	Autoload

3D ADDITIONS
AREA COVERED
4 hours
14

	Presets
	Automatic Bone Removal
	Manual Bone Removal
	Shaded Volume
	MaxIP
	MinIP
	X-Ray Projection
	Flythrough
	Layouts 3D
	Segmentation
	Clipping
	Cutting
	Combining 3D Models
	Image Save
	Keyframe Movie
	Opacity
	Manual Adjust
	High Resolution Mode
	Lighting
	Oblique Clipping
	Neg/Posi
	Mask on MPR
	Save & Reload 3D Page

TRAINEE(S)	SIGNATURE

HEAD OF DEPARTMENT	SIGNATURE

APPLICATION SPECIALIST	SIGNATURE

DATE

Follow up training has been scheduled from _____ till _____

COMMENTS