Introduction
The GE Revolution XR/d Systems course is a skills development course designed to provide the experienced service professional with the skills necessary to fully service and calibrate this dual detector system. The XR/d 1X platform is built around the SCPU generator, while the 2X platform is built around the JEDI generator. Both 1X & 2X systems will be covered in the course.

Prerequisites
To attend this course, the service professional must have a good understanding of the principles gained through attending Phase II or two years equivalent experience in servicing RAD equipment.

Objectives
• Describe the factors that affect digital image quality
• Describe how those factors are optimized to produce the highest quality digital images
• Describe the function of the basic components of the GE XR/d digital radiographic unit
• Demonstrate an understanding of the installation procedures associated with the GE Revolution XR/d
• Perform the necessary digital performance monitoring and quality assurance procedures utilizing the GE XR/d

Course Outline
DAY 1
• Digital imaging process overview
• Basic terminology
• XR/d system overview
• XR/d system operation
• System specifications
• Lab Activities
  o Basic system operation
  o AWS acquisition software
  o Image acquisition
  o Image viewer
  o Screen considerations
  o Technologist digital QC

DAY 2
• System documentation overview
• Installations
• Operations
  o ADS Workstation (1X)
  o Magic Workstation (2X)
• Service
• Schematics
• Lab Activities
  o Annual physicist checks
  o Image quality
  o Signal to noise
  o Resolution
  o Contrast ratio

DAY 3
• System service
• Lab Activities:
  o Required tools and software
    - Remove and replace covers and system panels
  o AWS
  o Gantry
  o Operators console
  o Generator

DAY 4
• UNIX basics
• AWS configuration
• Site planning and installation
• Network configuration
• Ethernet config
  o RT Bus
  o ArcNet Bus
  o CAN Network
• Troubleshooting XR/d internal Networks
• System calibration
• Functional checks
• System backups
• System restore
• Lab Activities
  o Component location
  o Schematic location
  o Physical location
  o Connector locations
  o Fuse location/identification
  o UPS Battery check/replacement procedures UNIX Telnet session
DAY 5
- Preventive maintenance
- Error codes
- System diagnostics
- Lab Activities
  - PM
  - Diagnostics

DAY 6
- Image Chain - Image Detection
  - IDC
    - Bad Pixel correction
    - Flatfield correction
- Detector
- Conditioner/Chiller
- Lab Activities
  - Remote login to IDC
  - Turning On/Off Bad Pixel correction
  - Turning On/Off Detector calibration corrections

DAY 7
- System service procedures
  - Software reload
    - ADS
    - IDC
    - Generator
    - Positioner
  - Troubleshooting
  - Options
  - Networking
  - Output devices
    - Laser printer
  - Input devices
    - Modality worklist
  - Lab Activities
    - Load from Cold (LFC)
    - Configure and test output devices
    - Configure and test input devices
    - Backup/Restore

DAY 8
- Generator calibration
- Lab Activities
  - AEC calibration
  - Beam alignment
  - Collimator format
  - Bad pixel
  - Detector gain
  - Positioner calibration - Table detector
  - Positioner calibration - Wallstand detector

DAY 9
- System schematics
  - AWS
  - Gantry
  - Generator
  - Troubleshooting
  - System diagnostics
  - Lab Activities
    - Review system diagrams and communication
    - Troubleshooting
    - System diagnostics
    - Access ADS Error logs

DAY 10
- Course review
- Course evaluation
- Final exam