

# PHILIPS INTEGRIS

Course Length: 2 Weeks  
CEUs Awarded: 8**Introduction**

The Integris (Integrated Imaging System) is a sophisticated diagnostic imaging system consisting of either a H1000 or H3000 general cardiovascular unit integrated with the Poly C2 positioning system. The Integris consists of four major subsystems that include geometry, image detection, viewing and system coordination. This course is designed to cover the overall system, theory of operation, calibration and troubleshooting.

**Objectives:**

At the conclusion of the class, student should be able to:

- Describe the Philips Integris V3000 system operation
- Perform block analysis and troubleshooting on subsystem level
- Calibrate system

**Prerequisites**

RSTI's Phases I-III and Servicing the Philips CP Family of Generators or equivalent experience is required.

**Course Outline****DAY 1**

- I. Introduction
- II. System configuration
  - A. System overview
  - B. Subsystem overview
    - a. GECO – Geometry
    - b. IDSC – Image detection
    - c. VISUB – Viewing
    - d. SYSCO – System coordination
- III. Integris V/H capabilities

**Lab Activities**

- I. Understanding Philips documentation
- II. Review system documentation
- III. Subsystem layout
- IV. Overall system operation

**DAY 2**

- I. Integris communication
  - A. LANs
  - B. CANs
  - C. SDL 4
  - D. Signal bus
- II. SYSCO communications
  - A. Acquisition coordinator
  - B. Peripheral control CPU
  - C. Signal bus
  - D. Puck interface

- E. Roomservice
- F. Hub board
- G. Acquisition console

**Lab Activities**

- I. SYSCO
  - A. Board LED status
  - B. Test software control/lackage
    - a. TCOP basic
    - b. TCOP main menu

**DAY 3**

- I. Integris communications (cont.)
  - A. Communications overview
  - B. SYNCRA NET
  - C. CANs
  - D. SDL
  - E. V24
  - F. Roan service bus
  - G. GSB
- I. System data communication
  - A. Overall block diagram
    - a. Viewing
    - b. X-ray generation
    - c. II/TV
    - d. Table/stepper
    - e. Geometry

**Lab Activities**

- I. Signal/bus tests
  - A. Power on/standby
  - B. Prep for fluoro
  - C. Fluoro/cont fluoro
  - D. RAD

**DAY 4**

- I. System controller (SYSCO)
  - A. Introduction & technical data
  - B. Installation
  - C. System diagram
  - D. Programming
  - E. Analysis

**Lab Activities**

- I. Inter connections
- II. Acquisition console
- III. Power on/off unit
- IV. Fault finding

**DAY 5**

- I. Geometry coordinator (GECO)
  - A. Function
  - B. Block analysis
  - C. TCOP menu

**Lab Activities**

- I. GECO software
  - A. Fault finding
  - B. Programming
  - C. Adjustments

**DAY 6**

- I. Image detection (IDSC)
  - A. Functions
  - B. Block analysis
  - C. Imaging chain
- II. IDSC
  - A. Error log
  - B. Adjustments
  - C. Acquisition

**Lab Activities**

- I. System dose calibration
- II. TV adjustments

**DAY 7**

- I. Viewing system
  - A. VISUB functions
  - B. Block analysis
  - C. Error log analysis
- II. Options
- III. Image processing
- IV. TCOP

**Lab Activities**

- I. SSIT test runs
- II. Quintessence shell
- III. File management
- IV. VCCOM

**DAY 8**

- I. Optimus
  - A. Functions
  - B. Block
  - C. Circuit power

**Lab Activities**

- I. Generator calibration
- II. Circuit analysis

**DAY 9**

- I. OMCP – Cont.
  - A. Interface
  - B. Diagnostics

**Lab Activities**

- I. Troubleshooting
- II. Diagnostics

**DAY 10**

- I. Review
- II. Final exam
- III. Graduation