CyberKnife®

CyberKnife® Treatment Delivery (C)

Product Training for the CyberKnife® Treatment Delivery System.

The in-person treatment delivery course is designed for operators of the CyberKnife Treatment Delivery System. This course will prepare the attendees for clinical implementation of CyberKnife treatment techniques by learning the skills required to deliver advanced treatments, perform daily quality assurance checks and basic data maintenance.

The course curriculum blends conceptual instruction on treatment delivery with hands-on lab exercises to allow attendees to perform specific steps in the CyberKnife System treatment process. Attendees will have an opportunity to apply the skills taught in a practical, problem-solving context to prepare them to operate the system in a clinical setting.

This course meets core curriculum requirements for CyberKnife New System Implementation.

COURSE OBJECTIVES

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

- Identify and describe key components of the CyberKnife System

- Perform treatment system safety related tasks

- Describe the typical CyberKnife System treatment workflow, including system startup and shutdown, patient preparation, patient alignment and treatment delivery using various tracking modes

- Describe a CyberKnife System treatment to a patient

- Explain patient setup steps, including immobilization strategies and pretreatment scanning guidelines for different applications

SKILLS

Upon completion of this course, attendees will be able to perform the following tasks:

- Optimize the X-ray technique for image acquisition

- Align the patient, perform initial patietn positioning, verify tracking accuracy and adjust tracking parameters for various tracking modes

- Monitor treatment delivery for accuracy and patient safety

- Recover from common system errors or Emergency Stops and resume treatment after a treatment interruption

COURSE FORMAT
In-person
- Instructor-led presentations
- System demonstrations
- Hands-on labs

COURSE PRE-LEARNING
Optional online modules available on Accuray Exchange

DURATION
Four (4) days

TARGET AUDIENCE
Radiation Therapists

PARTICIPANT BACKGROUND
Knowledge of the standards of practice in the field of radiation oncology

CE CREDITS
Twenty-four (24.0) MDCB Category A CE Credits

ACE Accuray Center for Education

CyberKnife®

Course Outline

Note: Course agenda is subject to change without notice.

DAY ONE

- Introduction to the CyberKnife® Treatment Delivery System
- Review of System Components
- Patient Preparation and CT guidelines
- User interface overview
- Synchrony® Skull Tracking™ delivery
- Fixed Collimator exchanges
- Hand Pendant operation

DAY TWO

- Equipment room review
- System warmup and morning QA
- Power Scheduler/Remote PC Shutdown
- Teach Pendant operation
- Physician Approval and TxView
- Synchrony® Spine Tracking Supine™ delivery
- Introduction to Synchrony® Fiducial Tracking™

DAY THREE

- Synchrony® Fiducial Tracking™ delivery
- InTempo™ System
- Tracking targets that move with respiration
- Creating a Synchrony® Respiratory Model
- Synchrony® Fiducial Tracking™ with Respiratory Modeling

DAY FOUR

- Synchrony® Spine Tracking Prone™
- Treatment Options for Lung
- Lung Optimized Treatment workflow
  - Synchrony® Lung Tracking™ with Respiratory Modeling
  - Synchrony® 1 View Lung Tracking™ with Respiratory Modeling
  - Synchrony® Spine Tracking™ for Lung
- Simulation Application