CyberKnife®

Accuray Precision® Treatment Planning for the CyberKnife® System (O)

Product Training for the Accuray Precision® Treatment Planning System on the CyberKnife®

The Accuray Precision Treatment Planning remote course is designed for Dosimetrists, Medical Physicists, and clinical personnel responsible for the development, optimization and finalization of clinical treatment plans delivered by the CyberKnife® Treatment Delivery System. The course includes a comprehensive overview of the tools and capabilities of the Accuray Precision® Treatment Planning System.

The course curriculum blends didactic instruction on CyberKnife-related treatment planning with hands-on lab exercises to allow attendees to develop and apply the practical skills being taught. Instruction progresses from CyberKnife specific planning fundamentals through more advanced treatment situations. The unique aspects and considerations for planning CyberKnife System treatments is the focus of this course. Intracranial and extracranial treatment planning will provide clinical context for the skills being taught.

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

COURSE OBJECTIVES

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

- Describe the typical treatment planning workflow for CyberKnife patients
- Discuss the tracking options for target locations throughout the body
- Explain the tracking methods for static and moving targets
- Discuss tools and techniques available for CyberKnifeTreatment Planning

SKILLS

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

- Navigate the Accuray Precision Treatment Planning System
- Fuse images, contour volumes of interest (VOIs), Independently create and evaluate treatment plans
- Generate treatment plans using the VOLO™ Optimizer

COURSE FORMAT
Remote
- Instructor-led presentations
- System demonstrations
- Hands-on labs

COURSE PRE-WORK
Optional online modules available on Accuray Exchange

DURATION
Three (3) days

TARGET AUDIENCE
Dosimetrists
Medical Physicists

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

CE CREDITS
Twenty-one and one-half (21.5) MDCB Category A CE Credits

ACE Accuray Center for Education

CyberKnife®

Course Outline

Note: Duration for remote course offerings may vary. Please visit our website (https://www.accuray.com/training/cyberknife-training/) for specific dates.

The course outline below is an example of a three-day course. This is subject to change depending on course duration.

DAY ONE

- Introduction to the CyberKnife® Treatment Delivery System
- Overview of the Accuray Precision® Treatment Planning System
- Patient Preparation and CT scanning guidelines
- Tracking static targets: Synchrony® Skull Tracking™
- Image fusion and contouring volumes of interest (VOI)
- Brain AutoSegmentation™
- Collimator options
- Brief overview of Isocentric and Sequential planning
- Introduction to VOLO optimization
- Intracranial single-target plan generation using VOLO Optimization

DAY TWO

- Basic treatment plan evaluation; plan finalization steps
- Plan with multiple targets in a single plan (with and without the same prescription dose)
- Tracking static targets: Synchrony® Spine Tracking Supine™
- Image fusion and Special VOI (Spine tracking volume)
- Spine plan generation using VOLO Optimization
- Tracking static targets: Synchrony® Fiducial Tracking™ and Implantation Guidelines
- InTempo™ Adaptive Imaging
- Prostate plan generation using VOLO Optimization
- Male pelvis AutoSegmentation™

DAY THREE

- Evaluating a Prostate Plan exercise
- Tracking targets that move with respiration
- Treatment Options for Lung
- Lung Optimized Treatment: Simulation plan generation
- Synchrony® 1 View Lung Tracking™ with Respiratory Modeling
- Monte Carlo Dose Calculation algorithm

NOTE: For more information on Sequential planning, please visit https://accurayexchange.com/ace-training/cyberknife/learning-library/?_sft_cll_treatment_planning_system=sequential-optimization