ABOUT ELEKTA
Elekta’s purpose is to invent and develop effective solutions for the treatment of cancer and brain disorders. Our goal is to help our customers deliver the best care for every patient. Our oncology and neurosurgery tools and treatment planning systems are used in more than 6,000 hospitals worldwide. They help treat over 100,000 patients every day. The company was founded in 1974 by Professor Lars Leksell, a physician. Today, with its headquarters in Stockholm, Sweden, Elekta employs around 4,000 people in more than 30 offices across 24 countries.
Welcome to the Elekta Care™ education & training catalog

Elekta is committed to providing superior clinical and technical education to advance patient care and help you transform your operations. As a current or prospective Elekta customer, there are blended learning options available to you at every stage of the learning journey, combining online education with face-to-face instruction, peer-to-peer collaboration, and expert networking to create experiential learning.

We hope that these comprehensive learning approaches promote scalable and sustainable learning and inspire continuous development and improvement for you and your clinic – for the benefit of your patients and community.

To learn more about our offering or to register for a course, visit us online at www.elekta.com/ElektaCare or contact your local Elekta support representative.
Leksell Gamma Knife® Icon™ Clinical Introductory Course

Objective
This course introduces clinicians to Gamma Knife® surgery with Leksell Gamma Knife Icon. The course focuses on clinical information combined with radiation physics, dosimetry, stereotactic imaging, quality assurance (QA), technical information and treatment planning using Leksell GammaPlan®, Introduction to workflows with Leksell Gamma Knife Icon, demo and hands-on.

Content
- Clinical program with lectures covering established indications for Gamma Knife surgery
  - Patient selection and teaching cases
  - Observation of patient treatments
- Introduction to Leksell Gamma Knife Icon include hands-on sessions:
  - System overview including Stereotactic Cone Beam Computer Tomography (CBCT) and High Definition Motion Management (HDMM) System, frame based and frameless techniques, treatment delivery evaluations, radiation unit, patient positioning system, control system
  - Practical workflow sessions
  - Demonstrations of clearance, radiation safety and emergency procedures
  - Quality Assurance
- Basic radiation physics, basic radiobiology, calibration, imaging modalities
- Introduction to treatment planning with Leskell GammaPLan, including hands-on sessions:
  - Workflow
  - Dose evaluation and algorithms
  - Patient-specific dosimetry
- Comparison dose plans
- Evaluation of dose plans
  - Advanced features
  - Administration

Training center and duration
4-day course at La Timone University Hospital Marseille, France

Target Audience
- Medical Physicists
- Radiation Therapists / Radiographers
- Neurosurgeons
- Radiation Oncologists
Leksell Gamma Knife® Icon™ Applications Introductory Course

Objective
This course makes users confident in the operation and quality assurance of Leksell Gamma Knife Icon. The course focuses on radiation physics, dosimetry, stereotactic imaging, quality assurance (QA), technical information and treatment planning using Leksell GammaPlan®. The training is an introduction to workflows with Leksell Gamma Knife Icon, including demos and hands-on.

Content
- Introduction to Leksell Gamma Knife Icon including hands-on sessions:
  - System overview including Stereotactic Cone Beam Computer Tomography CBCT and High Definition Motion Management System (HDMM System), Frame based and frameless techniques
  - Treatment delivery evaluation, radiation unit, patient positioning system and control system
  - Practical workflow sessions
  - Demonstrations of clearance, radiation safety and emergency procedures
  - Quality Assurance

Leksell Gamma Knife® Icon™ Applications Training for New Users

Objective
This training provides information, demonstration and support in the use of Leksell Gamma Knife Icon applications. The training focuses on hands on applications; molding mask fixation, workflows with Mask and G-frame, daily Quality Assurance. This activity is conducted by an Elekta Applications Specialist.

Content
- Introduction to Leksell Gamma Plan including hands-on sessions:
  - Basic workflows
  - Dose evaluation and algorithms
  - Patient-specific dosimetry
  - Comparison dose plans
  - Evaluation of dose plans
  - Advanced features
  - Administration

Training center and duration
3-day course in Stockholm, Sweden

Target group
- Medical Physicists
- Radiation Therapists/Radiographers
- Neurosurgeons
- Radiation Oncologists

Leksell Gamma Knife® Icon™ Applications Training for Leksell Gamma Knife® B/C/4C Users

Objective
This training provides information, demonstration and support in the use of Leksell Gamma Knife Icon applications. The training focuses on hands on applications; molding mask fixation, workflows with Mask and G-frame, daily Quality Assurance. This activity is conducted by an Elekta Applications Specialist.

Content
- Introduction to workflows with Icon; demo and hands on:
  - Workflows with Mask & G-frame using CBCT as stereotactic reference
  - Workflows with G-frame using indicator box and external MR/CT-images to get stereotactic localization
  - Daily QA procedures; demo and hands on
  - Emergency Procedures

Training center and duration
4-day at customer site

Target group
- Gamma Knife staff
- Radiology Staff
- Physicist
- Physicians
- Sterile Processing staff

Leksell Gamma Knife® Icon™ Applications Training for Leksell Gamma Knife® Perfexion™ Users

Objective
This training provides information, demonstration and support in the use of Leksell Gamma Knife Icon applications. The training focuses on hands on applications; molding mask fixation, workflows with Mask and G-frame, daily Quality Assurance. This activity is conducted by an Elekta Applications Specialist.

Content
- Introduction to Icon; demo and hands on:
  - Introduction to Stereotactic Beam CBCT
  - Introduction to Mask Fixation Set Up including hands on molding mask fixation
  - Introduction to High Definition Motion Management (HDMM)
  - Introduction to Leksell Gamma Plan 11

Training center and duration
3-day at customer site

Target group
- Gamma Knife staff
- Radiology Staff
- Physicist
- Physicians
- Sterile Processing staff

FOR MORE INFORMATION
education-neuro@elekta.com
Leksell Gamma Knife® / Leksell GammaPlan® On-site Training On Demand

Objective
The Leksell Gamma Knife/Leksell GammaPlan On-site training is arranged on demand at the customer site. The training is tailor-made according to the customer's requirements. The objective is to give users the opportunity to be proficient and enhance their competence in the use of Leksell Gamma Knife and Leksell GammaPlan.

Content
As per customer requirements, may include:
- The principles and practices of stereotaxy and radiosurgery
- Principles of frame application
- Patient selection and teaching cases
- Lectures
- Introduction and hands on Leksell GammaPlan

Leksell Gamma Knife® Perfexion™ Introductory Course

Objective
This course focuses on clinical information, combined with radiation physics. Participants will learn details about technical and dosimetry aspects of Leksell Gamma Knife. At the end of the course attendees should be able to perform acceptance, commissioning, and regular quality assurance of the Leksell Gamma Knife unit and treatment planning including configuration and administration of Leksell GammaPlan® treatment planning software. Further, participants should be able to address all requirements of clinical use such as stereotactic imaging, unit operation and radiation safety, and emergency procedures.

Content
- Leksell Gamma Knife Perfexion hardware and dosimetry
- Acceptance and commissioning
- Daily, monthly, and annual quality assurance
- Principles of stereotactic imaging and radiosurgery treatment planning
- Technical descriptions of Leksell Gamma Knife
- Operators Console
- Physics
- Clearance and emergency procedures
- QA procedures

Training Center and Duration
4-day course at NA Homolce Hospital, Department of Stereotactic and Radiation Neurosurgery, Department of Medical Physics, Prague, Czech Republic.

Target group
- Medical Physicists
- Neurosurgeons
- Radiation Oncologists
- Radiation Therapists

Leksell Gamma Knife® Perfexion™ Upgrade Course

Contact information
www.cccme.org/GammaKnife15
www.neurosurgery.pitt.edu/training/gamma_knife.html

Training center and duration
3-day course at:
- Cleveland Clinic Gamma Knife Center, Cleveland, OH, USA
- University of Pittsburgh, Center for Image-Guided Neurosurgery, PA, USA

Leksell Gamma Knife® Perfexion™/Leksell GammaPlan® Physics Introductory Course

Contact information
www.whhs.com/neuroscience/gamma-knife-education/

Training center and duration
3-day course at: Washington Hospital Healthcare System, Fremont, CA, USA

Objective
The Leksell Gamma Knife/Leksell GammaPlan Physics Introductory course is aimed at users who want to gain a basic understanding of the physics of stereotactic radiosurgery and the use of Leksell Gamma Knife and Leksell GammaPlan. Participants will learn about the principles of radiosurgery, patient selection, treatment planning, and quality assurance.

Content
- Basics of radiobiology and dose selection
- Clinical lecture covering established indications
- Patient selection and teaching cases
- Observation of patient treatments
- Hands-on session with GammaPlan and Leksell Gamma Knife® Perfexion™
- Radiation safety and emergency procedures

Training center and duration
4-day course at NA Homolce Hospital, Department of Stereotactic and Radiation Neurosurgery, Department of Medical Physics, Prague, Czech Republic.

Target group
- Medical Physicists
- Neurosurgeons
- Radiation Oncologists
- Radiation Therapists

FOR MORE INFORMATION
education-neuro@elekta.com
Leksell Gamma Knife® Perfexion™ Observation Training

Objectives
Trainees will follow the daily work at the Neurosurgery Unit at University Hospital San Raffaele. The practical aspects of stereotactic radiosurgery using Leksell Gamma Knife Perfexion include the basic principles and biosphysics of Gamma Knife radiosurgery and how they apply to day-to-day patient treatment. Clinical indications and parameters of treatment outcomes are reviewed, as are radiation safety issues and principles, and emergency procedures.

Content
- Principles are practice of stereotaxy and radiosurgery
- Principles of frame application

Leksell Gamma Knife® System Start

Objectives
The System Start is the second phase of the training for new installations and upgrades of Leksell Gamma Knife. On-site clinical and technical application support is provided to users after installation and takes place the first week of patient treatments. The objective is to give users the opportunity to be proficient and to enhance their competence in the use of Leksell Gamma Knife.

Content
- Patient selection and treatments
- Treatment planning
- Treatment

Leksell Gamma Knife® Perfexion™ Advanced Course

Contact Information
www.medicine.virginia.edu/clinical/departments/neurosurgery/gammaknife/conference/advanced_course-page

Training center and duration
3-day course at University of Virginia, Charlottesville, Virginia, USA

NOTES ON THIS COURSE: 6 months experience in stereotactic radiosurgery is a pre-requisite

Advanced Leksell GammaPlan® Course for Leksell Gamma Knife® Perfexion™

Objective
This course enhances the knowledge of users in 3D volumetric dose planning, by providing comprehensive didactic and supervised practical training. This is achieved by covering various planning evaluation techniques applicable for Leksell GammaPlan for Leksell Gamma Knife Perfexion.

Content
Interactive lectures and hands-on sessions covering:
- Imaging and QA
- Dose planning strategies with new features
- Workflow strategies and planning evaluations
- Radiobiology for Radiosurgery
  - Advanced shielding strategies
  - Convolution Algorithm

Training center and duration
3-day course at:
- Elekta, Atlanta, USA
- Elekta, Stockholm, Sweden

Target group
- Medical Physicists
- Treatment Planner
- Radiation Oncologists
- Neurosurgeons

NOTES ON THIS COURSE: 6 - 12 months experience of Gamma Knife surgery a pre-requisite

Neuroscience One Day Applications Support

Objective
This course provides information, demonstration, and support in the use of Elekta neurosurgery equipment and to further develop their skills in the use of the system. This activity is conducted by Clinical Applications Specialist and is customized to meet specific needs.

Content
As per customer requirements, may include:
- Demonstration and hands-on of Leksell Stereotactic System® and all accessories
- Demonstration and hands-on practice with Leksell SurgiPlan®
- Demonstration and hands-on practice with Leksell GammaPlan®
- Demonstration and hands-on practice with Leksell Gamma Knife®

Training center and duration
1-day at customer site

Target group
- Operating Room Staff
- Radiology Staff
- Gamma Knife staff
- Physicist
- Physicians
- Sterile Processing department staff

FOR MORE INFORMATION  education-neuro@elekta.com
Leksell Gamma Knife® Perfexion™ Clinical Introductory Course

Objective
This course introduces clinicians to Leksell Gamma Knife Perfexion and review the clinical indications, parameters of treatment and outcomes of Gamma Knife surgery. Trainees will also learn to recognize radiation safety issues and principles.

Content
- Principles and practices of stereotaxy and radiosurgery
- Principles of frame application
- Patient selection and teaching cases
- Clinical program with lectures covering established indications for Gamma Knife surgery
- Hands-on sessions with Leksell GammaPlan®
- Observation of patient treatment
- Clearance and emergency procedures

Training center and duration
5-day course held at Shanghai Gamma Knife Center, China

Target group
Leksell Gamma Knife Perfexion users. This course is held in Chinese.

NOTES ON THIS COURSE: This course is not available for U.S. based customers.

Leksell Gamma Knife® Perfexion™ Clinical Course

Objective
Attendees obtain knowledge about the practical aspects of stereotactic radiosurgery using Leksell Gamma Knife 4C. To identify the basic principles and biophysics of Gamma Knife surgery and how they apply to day-to-day patient treatment. Review the clinical indications, parameters of treatment and outcomes of Gamma Knife surgery. Recognize radiation safety issues and principles, as well as become familiar with emergency procedures.

Content
- Principles and practice of stereotaxy and radiosurgery
- Principles of frame application
- Patient selection and teaching cases
- Clinical program with lectures covering established indications for Gamma Knife surgery
- Observation of patient treatments
- Hands-on sessions with Leksell GammaPlan®
- Clearance and Emergency procedures
- Quality Assurance

Training center and duration
2-day course held at:
- Furukawa Seiro Hospital, Myagi, Japan
- Yokohama Rosai Hospital, Yokohama, Japan

Target group
The course is held in Japanese tailored for Leksell Gamma Knife 4C users in Japan

NOTES ON THE COURSE: This course is not available for U.S. based customers.
Leksell Gamma Knife® Perfexion™ Clinical Introductory Course

Objective
This course introduces clinicians to Leksell Gamma Knife Perfexion and review the clinical indications, parameters of treatment and outcomes of Gamma Knife surgery. Trainees will also learn to recognize radiation safety issues and principles.

Content
• Principles and practices of stereotaxy and radiosurgery
• Principles of frame application
• Patient selection and teaching cases
• Clinical program with lectures covering established indications for Gamma Knife surgery
• Hands-on sessions with Leksell GammaPlan®
• Observation of patient treatment
• Clearance and emergency procedures

Training center and duration
4.5-day course held at Moscow Gamma Knife Center at N.N. Burdenko Neurosurgical Institute Moscow, Russia

Target group
Leksell Gamma Knife Perfexion users. This course is held in Russian.

NOTES ON THIS COURSE: This course is not available for U.S. based customers.

Leksell Gamma Knife® Perfexion™ Observation Training

Objective
Trainees will follow the daily work at the N.N. Burdenko Neurosurgical Institute Gamma Knife Center to enhance skills and knowledge to help deliver optimum patient care. The training will ensure confidence and proficiency in the use of Leksell Gamma Knife Perfexion and Leksell GammaPlan®.

Training Center
Training is held at Moscow Gamma Knife Center at N.N. Burdenko Neurosurgical Institute Moscow, Russia

Target group
Leksell Gamma Knife Perfexion users. The training is held in Russian.

NOTES ON THIS COURSE: This course is not available for U.S. based customers.
IGRT Clinical Training

Objective
This course provides clinical understanding in the use of 4D Image Guided Radiation Therapy (IGRT) and practical guidelines in the use of Elekta Synergy®.

Content
• Introduction to IGRT – clinical experience and benefits
• General clinical workflows
• Image acquisition – calibration and basic QA
• Data communications (TP-XVI)
• Image registration
• Set-up deviation handling – decision rule – table correction
• Protocol – correction of error
• Practical workflows (on/off-line)
• Discussions on different clinical indications
• Practical hands-on sessions i.e. TP XVI, QA and treatment

Training center and duration
2-day course at: Netherlands Cancer Institute Antoni van Leeuwenhoek Hospital (NKI-AVL)

Target group
• Radiation Oncologists
• Physicists
• Radiation Therapists/Radiographers

IGRT and VMAT Training

Objective and Course Information:
http://www.seattleprostate.com/for-physicians/

Training center and duration
1.5-days at: Seattle Prostate Institute, Seattle, Washington, USA
Advanced IMRT/VMAT

Objective
This comprehensive course in Intensity Modulated Radiation Therapy (IMRT) and Volumetric Modulated Arc Therapy (VMAT) is designed to provide a solid understanding in the clinical applications, principles and differentiators between modalities. Dosimetry, Quality Assurance procedures and clinical protocols for the Elekta platform with the aim of accelerating the clinical start-up and implementation of these techniques for new and existing Elekta users.

Content
• Comprehensive knowledge of IMRT and VMAT principles
• Comprehensive knowledge of clinical applications for IMRT and VMAT
• Understand dose selection, fractionation and planning techniques
• Understand imaging requirements (pre/post treatment)
• Understand target definitions and organs at risk
• Confidence in creating patient treatment plans utilizing Monaco® 5.0 TPS for both IMRT and VMAT modalities
• Define methods to mitigate motion in radiotherapy
• Observed and discuss delivery of IMRT/VMAT treatments
• Observed delivery of IMRT/VMAT treatments: inclusive of incorporating motion management techniques with approved Elekta medical devices
• Comprehensive knowledge in Beam Data Acquisition, Commissioning and QA procedures for IMRT/VMAT modalities
• Define the different filmless approaches for IMRT/VMAT QA - from 2D to 3D
• Define quality assurance procedures for new technologies e.g. VMAT, Agility™ MLC and FFF (Versa HD™)
• Increase confidence to implement IMRT/VMAT into routine clinical practice.

Training center and duration
2-day course at University Medical Centre Mannheim

Target group
• Physicists
• Treatment Planner
• Radiation Oncologists
• Radiation Therapists/ Radiographers

SRT Clinical Training

Objective
This advanced clinical training program is designed to present the processes required to implement Stereotactic Radiation Therapy (SRT) /Radiosurgery (SRS) utilizing Elekta Axesse™ and Versa HD™.
The delegate will, on completion:
• Understand dose selection, fractionation and planning techniques
• Become familiar with Imaging requirements (pre/post treatment)
• Practice set up and verification
• Observe and discuss delivery of SRT/SRS
• Increase confidence to implement SRT/SRS into routine clinical practice SRT Clinical Training

Content
• Provide theoretical background to stereotaxy and dose escalation/hypofractionation
• Demonstrate the use of Elekta SRT systems for target localization

Training center and duration
2-day course at Würzburg University Hospital, Germany

Target group
• Radiation Oncologists
• Physicists
• Radiation Therapists/ Radiographers
• Treatment Planner
• Anyone interested in SRT

NOTES ON THIS COURSE: A solid understanding of oncology and extensive experience delivering Image Guided Radiation Therapy is required.

Advanced IMRT/VMAT Extension

Objective
This segment of the Intensity Modulated Radiation Therapy (IMRT) and Volumetric Modulated Arc Therapy (VMAT) course is designed to provide practical experiences in machine and patient quality assurance procedure on the Elekta platform with the aim of accelerating the clinical startup and implementation of these techniques for new and existing Elekta users.

Content
Option (Medical Oncologist) .5 day
• Define QA/ Verification procedures for IMRT/VMAT with film and 2D
• Comprehensive knowledge of what to do when dosimetry is not within specifications
• Observed QA testing and verification procedures.

Prerequisites
Completed 2 day Advanced IMRT/VMAT course.

Training center and duration
.5 day course at University Medical Centre Mannheim

Target group
• Physicists
• Treatment Planner
• Radiation Oncologists
• Radiation Therapists/ Radiographers

NOTES ON THIS COURSE: Attendees must complete 2-day Advanced IMRT/VMAT course.

SRT Clinical Training

Objective
This advanced clinical training program is designed to present the processes required to implement Stereotactic Radiation Therapy (SRT) /Radiosurgery (SRS) utilizing Elekta Axesse™ and Versa HD™.
The delegate will, on completion:
• Understand dose selection, fractionation and planning techniques
• Become familiar with Imaging requirements (pre/post treatment)
• Practice set up and verification
• Observe and discuss delivery of SRT/SRS
• Increase confidence to implement SRT/SRS into routine clinical practice SRT Clinical Training

Content
• Provide theoretical background to stereotaxy and dose escalation/hypofractionation
• Demonstrate the use of Elekta SRT systems for target localization

Training center and duration
2-day course at Würzburg University Hospital, Germany

Target group
• Radiation Oncologists
• Physicists
• Radiation Therapists/ Radiographers
• Treatment Planner
• Anyone interested in SRT

NOTES ON THIS COURSE: A solid understanding of oncology and extensive experience delivering Image Guided Radiation Therapy is required.
## Wake Forest Stereotactic Radiation Therapy Course

### Objective and Course Information:
https://wakeforeststr.com/

### Elekta XVI

#### Objective
This course provides applications training on the X-ray volume imaging (XVI) functionality and its use in the patient’s course of treatment.

#### Content
- XVI hardware overview
- Software structure overview
- Preparation of 2D, 3D and 4D reference data
- Three modes of acquiring images: PlanarView™, MotionView™ and VolumeView™
- Image registration
- Dual registration – Critical Structure Avoidance
- Image approval

#### Training center and duration
2-day course at Wake Forest University Baptist Medical Center, NC, USA

### iViewGT™

#### Objective
This course provides applications training in the use of iViewGT imaging system, using the amorphous silicon panel. The course enables operators to acquire patient images before and during patient treatment.

#### Content
- Introduction to iViewGT hardware and software
- The preparation of patient details and reference data for image acquisition
- Image acquisition for simple and IMRT beams
- How to view and manipulate images

#### Training center and duration
2.5-day course at the customer site (ASRT accredited).

### Active Breathing Coordinator™

#### Objective
This course provides applications training in the clinical use of Active Breathing Coordinator (ABC) together with a basic understanding of the hardware and software.

#### Content
- Introduction to the Active Breathing Coordinator hardware and software
- Entering patient information
- Patient coaching

#### Training center and duration
1-day course at the customer site.

#### Target group
- Radiation Therapists
- Radiographers
- Treatment Technicians

### HexaPOD™ evo RT System

#### Objective
To provide applications training in the use of HexaPOD evo RT CouchTop and iGUIDE®. The course enables operators to use HexaPOD evo RT CouchTop and iGUIDE to facilitate accurate patient positioning for conformal and stereotactic radiotherapy treatments.

#### Content
- Hardware Components
  - Introduction to the Control and treatment area computers
  - Introduction to HexaPOD evo RT CouchTop (including BEAM® CouchTop) and iGUIDE System
  - Host table function
  - Camera hardware
  - Reference frame

- Software Components
  - iGUIDE control software
  - Review of the screen layout and menu structure
  - Patient data management
  - Review of the basic operating routines
  - Review of user documentation and safety chapter
  - Assessment and training checklist

#### Training center and duration
2-day course at the customer site.

#### Target group
- Radiation Therapists/Radiographers
- Physicists
- Radiation Oncologists

Please note there is an automatic PEC transfer from XVI to GUIDE which can be set to manual data transfer during installation.
BodyFIX®

Objective
This course provides applications training in the use of BodyFIX. The course enables operators to use BodyFIX to facilitate accurate patient positioning for extra-cranial conformal and stereotactic radiotherapy treatments.

Content
- Introduction to BodyFIX and components
- Initial positioning and immobilization of the patient
- Vacuum cushion preparation
- Daily patient repositioning
- Storage of patient specific components
- Setup on CT/MRI and planning

Training center and duration
1-day course at the customer site.

Target group
- Radiation Therapists / Radiographers
- Physicists
- Radiation Oncologists

Elekta Compact™ with Asymmetric Head

Objective
This course provides applications training in the use of Elekta Compact for clinical purposes.

Content
- Introduction to the Elekta Compact with asymmetric head
- System hardware overview
- Treatment delivery
- Understanding system administration

Training center and duration
1.5 day course at the customer site.

Target group
- Radiation Therapists / Radiographers
- Physicists

Elekta Compact™ with MLCi2

Objective
This course provides applications training in the use of Elekta Compact with MLCi2 for clinical purposes.

Content
- Introduction to the Elekta Compact with MLCi2
- System hardware overview
- How to enter treatment parameters in Deliver
- Standard Therapy
- Treatment delivery
- Understanding system administration
- Use of Elekta Compact with MLCi2 in Receive External Prescription

Training center and duration
1.5 day course at the customer site.

Target group
- Radiation Therapists / Radiographers
- Physicists

Treatment Control System – Integrity™

Objective
This course provides applications training in the use of the Elekta medical linear accelerator purchased. The course enables operators to use their equipment in the modes and techniques available for clinical purposes.

Content
- Introduction to their configuration of the Elekta medical linear accelerator
- An overview of the hardware in the treatment room
- The available treatment modes and techniques, including X-ray, Electron and HDRE fields
- Licensed options available:
  - PreciseBEAM™ Segmental
  - PreciseBEAM™ Dynamic
  - PreciseBEAM™ Dynamic Arc
  - VMAT
- Understanding system administration

Training center and duration
1.5-day course at the customer site (ASRT accredited).

Target group
- Radiation Therapists / Radiographers
- Physicist
Apex™

Objective
This course provides applications training in the use of Apex multileaf collimator. The course enables operators to use the Apex to image and deliver highly conformal treatment fields.

Content
- Introduction to the Apex multileaf collimator
- Attaching and removing the Apex collimator
- System software overview
- Gantry and leaf calibrations
- Exporting plans from the treatment planning system
- User interface
- Treatment
- Image acquisition

Training center and duration
1.5-day course at the customer site

Target group
- Radiation Therapists/Radiographers
- Physicists

Esraion™

Objective
This course provides applications training in the use of Fraxion. The course enables operators to use Fraxion to facilitate accurate patient positioning for conformal and stereotactic radiotherapy treatments.

Content
- Introduction to Fraxion and components
- Equipment setup:
  - Mouthpiece
  - Thermoplastic mask
  - Frontpiece
  - Fraxion headrest and post
- Stereotactic frame and co-ordinate system
- Initial positioning and immobilization of the patient
- Daily patient repositioning
- Storage of patient specific components
- Setup on CT and planning

Training center and duration
1-day course at the customer site.

Target group
- Radiation Therapists /Radiographers
- Physicists

Elekta Oncology Engineer – 1 (EOE-1) Transition

Objective
This course enables attendees to:
- Interrogate the software for simple diagnostic information
- Fault find and repair the low level interlock systems, mechanics, beam limiting devices and control systems
- Calibration of movements.
- Check and set the machine optical systems and services
- Use image software based calibration tools for beam limiting devices
- Operate MV and kV imaging systems

Content
- Interlocks & supplies
- Back up – Restore
- iView GT™ – mechanics, calibration
- Precise Table™
- MLCi, MLCi2, Beam Modulator - Corrective Maintenance, Calibration and Optics
- MLCi, MLCi2, Calibration, ACAL
- iView GT™/ XVI, operation

Assessment
Three theory assessments and practical assessments.

Training Centers and Duration
10-day course at:
- Elekta Limited, Crawley, UK
- Elekta, Atlanta, GA, USA
- Elekta, Beijing, China

Target group
- Hospital Engineers (self maintainers)
- Elekta Field Service Engineers
- Distributor Field Service Engineers

NOTES ON THIS COURSE: The elearning course ‘Intro to Linac’ is a pre-requisite for this course.
Elekta Oncology Engineer – 2 (EOE2)

Objective
This course enables attendees to:
• Check the operation of the HT and RF system
• Adjust the X-ray beam energy and uniformity
• Adjust the electron beam energy and uniformity
• Setup and calibrate the MV and kV imaging systems
• Update MV and kV bad pixel maps
• Perform image registration of XVI (X-ray volume imaging)
• Operate kV generator in service mode

Content
• High Tension and RF
• Beam Energy
• Beam Transport
• Electrons
• iViewGT™ and XVI imaging system calibration
• HIS / XIS software
• Initial Set Up / Bad Pixel Map kV and MV
• XVI Flexmap creation
• Customer Acceptance Tests kV
• XVI image Registration
• Image artefacts
• Generator operation service mode
• LCS, XVI & iView GT™ computers
• Computer cabinet fault finding

Assessment
Two theory assessments and two practical assignments.

Training Centers and Duration
15-day course at:
• Elekta Limited, Crawley, UK
• Elekta, Atlanta, GA, USA
• Elekta Beijing Medical Systems Co., Ltd., China

Target group
• Hospital Engineers (self maintainers)
• Elekta Field Service Engineers
• Distributor Field Service Engineers

NOTES ON THIS COURSE: Elekta Oncology Engineer - part 1 (EOE1) or equivalent is a pre-requisite

Pre-study Elekta Compact™ Training Course

Objective
This course provides underpinning knowledge and practical experience for those engineers who are not very experienced in the industry.

Content
• Introduction to radiotherapy
• Treatment machine technology
• The treatment process and control
• Introduction to the Elekta Compact

Assessment
One theory assessment.

Training center and duration
5-day course at Elekta Beijing Medical Systems Co., Ltd., China.

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

Elekta Compact™ Engineer

Objective
This course enables attendees to:
• Conduct machine calibration procedures
• Check the operation of the RF System
• Measure and optimize the X-ray beam
• Check the operation and connectivity to an external system
• Conduct logical fault finding methodology

Content
• Control systems
• System overview
• Machine calibration
• Measurement techniques
• High tension and RF
• Beam energy
• Beam transport
• Fault finding

Assessment
Two theory assessments and two individual practical assessments.

Training Centers and Duration
15-day course at Elekta Beijing Medical Systems Co., Ltd., China.

Target group
• Hospital Engineers
• Elekta and distributors Engineers

NOTES ON THIS COURSE: Passing one of the following courses is a pre-requisite.
• Pre-study Elekta Compact Training Course, EOE2 Course, or 2nd Line Engineer Course

Pre-study Elekta Compact™ Training Course

Objective
This course provides underpinning knowledge and practical experience for those engineers who are not very experienced in the industry.

Content
• Introduction to radiotherapy
• Treatment machine technology
• The treatment process and control
• Introduction to the Elekta Compact

Assessment
One theory assessment.

Training center and duration
5-day course at Elekta Beijing Medical Systems Co., Ltd., China.

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

NOTES ON THIS COURSE: Elekta Oncology Engineer - part 1 (EOE1) or equivalent is a pre-requisite
Elekta Compact™ with MLCi2 Service Engineers

Objective
This course enables attendees to:

• Understand the treatment control system
• Understand the MLC hardware
• Operate the machine in service mode
• Conduct calibration procedures for the linac and MLC
• Conduct the planned maintenance tasks

Content

• MLC hardware and control system
• Integrity 2.X control system
• Linac geometric parameters calibration process
• MLC calibration process

Assessment
One theory assessment.

Training Centers and Duration
5-day course at Elekta Beijing Medical Systems Co., Ltd., China.

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

NOTES ON THIS COURSE: Elekta Compact Engineer is a pre-requisite

Elekta Compact™ with iViewC™ Service Engineers

Objective
This course enables attendees to:

• Understand the iViewC control system
• Understand the iViewC hardware
• Conduct calibration procedures
• Conduct the planned maintenance tasks

Content

• iViewC hardware and software systems
• Image quality
• Image system calibration process

Assessment
One theory assessment.

Training Centers and Duration
5-day course at Elekta Beijing Medical Systems Co., Ltd., China.

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

2nd Line Physics and MLC

Objective
This course enables attendees to:

• Operate the linac and MLC in Service Mode
• Check the operation of the HT and RF systems
• Measure and adjust the X-ray and electron beam energy
• Measure and adjust the X-ray and electron field uniformity
• Conduct calibration procedures and QA for the linac and MLC

Content

• High tension (HT) and radio frequency (RF)
• X-ray beam energy
• X-ray beam transport
• Electron treatment beams
• Dosimetry
• Multileaf collimators (MLC) systems
• MLC calibration
• VMAT setting to work
• Linac calibration
• Treatment control system operation
• Quality assurance discussion

Assessment
Two theory assessments.

Training center and duration
10-day course at:
• Elekta Limited, Crawley, UK
• Boxmeer, The Netherlands
• Elekta, Atlanta, GA, USA

Target group
• Hospital Physicists
• Elekta and distributors’ physics staff

NOTES ON THIS COURSE: Completion of Introduction to the Digital Linear Accelerator e-Learning Course – Level 2 or passing of the 1st Line Exemption Test is required.
3rd Line Beam Measurement

Objective
This course enables attendees to:
• Describe the features of the beam from the patient’s perspective
• Competently measure and assess electron and photon beams
• Competently measure absolute dose
• Produce % depth dose and isodose curves for the digital accelerator using Excel
• Evaluate a digital accelerator for clinical use
• Discuss beam characteristics with physics colleagues

Content
• Clinical beam requirements
• Beam parameters photons and electrons
• Measurement techniques
• Beam modifiers and build up
• Absolute dose measurement

Assessment
Continual assessment during the course. Successful completion of eight tasks.

Training Centers and Duration
3-day course at:
• Elekta Limited, Crawley, UK
• Boxmeer, The Netherlands

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

NOTES ON THIS COURSE: 2nd Line Engineers Course or Elekta Oncology Engineer part 2 (EOE2) is a pre-requisite.
It is recommended to take this course with Beam Measurement.

3rd Line Beam Measurement Advanced

Objective
This course enables attendees to:
• Set up and check minimum leakage/maximum output
• Set up and check field symmetry and flatness
• Set up and check lookup tables
• Identify causes of symmetry errors

Content
• Minimum leakage/Maximum output
• AB & GT setup
• Field symmetry and flatness
• Lookup tables
• Fault causes, effects and repair

Assessment
Completion of the practical tasks and produce documented evidence.

Training Centers and Duration
2-day course at:
• Elekta Limited, Crawley, UK
• Boxmeer, The Netherlands

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

NOTES ON THIS COURSE: 2nd Line Engineers Course or Elekta Oncology Engineer part 2 (EOE2) is a pre-requisite.
It is recommended to take this course with Beam Measurement.

3rd Line HT & RF

Objective
This course enables attendees to:
• Describe the theory of operation of the Radio Frequency (RF) and High Tension (HT) system of the linac
• Diagnose faults and repair

Content
• HT: HTPSU, Modulator, Fault diagnosis
• RF: Magnetron standard and FTM, Thyatron, RF system, AFC system
• Fault diagnosis
• Acceleration: Input mode and output mode transformers, buncher section, energy

Assessment
Two theory assessments.

Training Centers and Duration
• 3-day course at Elekta Limited, Crawley, UK.
• Boxmeer, The Netherlands

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

NOTES ON THIS COURSE: Completion of EOE1 and EOE2 are pre-requisites.

Elekta Medical Linear Accelerator kV Generator

Objective
This course enables attendees to:
• Identify the main hazards present on the Sedecal generator
• Interrogate the system for simple diagnostic information
• Locate all supplies and printed circuit boards
• Describe the installation process
• Configure the hardware and software
• Perform the planned maintenance procedures

Assessment
There will be a multiple choice assessment where the student must achieve a 75% pass rate.

Training center and duration
3-day course at Elekta Limited, Crawley, UK.

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

NOTES ON THIS COURSE: Completion of a EOE2 or Synergy IGRT QA or 2nd Line Physics & MLC Course or Elekta Oncology Engineer - part 2 (EOE2) are pre-requisites.
Objective
This course enables attendees to:
• Install a new Precise Table with HexaPOD or upgrade an existing table
• Set up and calibrate HexaPOD
• Set up the HexaPOD Reference Frame
• Perform Corrective Maintenance procedures
• Use software tools to perform diagnostic tests
• Perform the Customer Acceptance Tests
• Perform the iGUIDE Camera Accuracy Test

Content
Service support of HexaPOD and iGUIDE

Assessment
Assessment of practical competency during the course. Theoretical understanding at end of course.

Training Centers and Duration
• 4-day course at Elekta Limited, Crawley, UK
• 3-day course at Elekta, Atlanta, GA, USA
• 3-day course at Elekta, Beijing, CH
• 3-day course at RTTC, Tokyo, JP

Target group
• Elekta Engineers
• Distributor Engineers
• Hospital Engineers

NOTES ON THIS COURSE: EOE1 or Precise Table Course are pre-requisites.

Apex™ 1st and 2nd Line

APEX 1st LINE
Objective
This course enables the engineer to install and set up the Apex system, as well as perform troubleshooting and repair procedures.

Content
• System Overview
• Software Installation
• Hardware Installation
• Clinical and Service Software
• Troubleshooting and Repair Procedures
• Setting to Work
• Customer Acceptance

Training Centers and Duration
• 5-day courses also available at: Elekta, Atlanta, GA, USA; Elekta, Beijing, CN; RTTC, Tokyo, JP
• Elekta, Atlanta, GA, USA (October 2015)
• Beijing, LINC and RTTC, Japan

APEX 2nd LINE
Objective
This course covers installation and set up, from start to finish, and provide in-depth coverage of the Customer Acceptance Tests.

Training Centers and Duration
This course takes place on-site

NOTES ON THIS COURSE: Apex 1st Line is required before Apex 2nd line.

For additional information, please contact the local Elekta business unit or representative.

Agility™ and Integrity™ 3

Objective
This course enables attendees to:
• Describe the differences between the Integrity 3 and previous treatment control systems (Integrity 1 and Desktop Pro)
• Describe the differences between the Agility and previous beam limiting device hardware (MLC1, MLC2 and Beam Modulator)
• Identify all the major components of the Agility beam limiting device
• Identify all the major components of the Integrity 3 treatment control system
• Describe the functionality of the Agility beam limiting device
• Describe the functionality of the Integrity 3 components
• Fault find and repair the treatment control system hardware and software
• Fault find and repair the beam limiting device hardware
• Run the Service Mode setting to work procedures for optimizing the optical system and calibrating the beam limiting device

Assessment
Theory assessments during the distance learning and practical assessments at a training center.

Training Centers and Duration
4 hours distance learning and 4 full days at:
• Elekta Limited, Crawley, UK
• Elekta, Atlanta, GA, USA
• Elekta, Beijing, CN

Target group
• Elekta Field Service Engineers
• Distributor Field Service Engineers
• Hospital Engineers (self-maintainers)

NOTES ON THIS COURSE: Contact the local Elekta business unit or representative.

Physics 1: Medical Accelerator Introduction

Objective
This course provides introductory training on the operation and calibration of the Elekta Medical Linear Accelerator.

Course Content
• Theory of operation
• Control system and system communication
• Beam measurement and dosimetry
• Agility beam limiting device
• Imaging systems and Introduction to IGRT

Duration
5-day training at regionally established location (Accredited by CAMPEP)

Target group
• Medical Physicists
• Medical Physics Students

NOTES ON THIS COURSE: this course is only offered for the United States
Medical Accelerator Quality Assurance

Objectives
This course provides training on the Quality Assurance (QA) of an Elekta Medical Linear Accelerator.

Course Content
- List the AAPM Task Group 142 reports (TG 142), recommended frequency and determine applicability to customer’s clinical setting.
- Perform and evaluate dosimetry, mechanical, safety, respiratory gating, universal wedge, MLC, and imaging tests.
- Analyze potential causes of failure to determine corrective actions.
- List Elekta linear accelerator characteristics and how they apply to TG 142 accelerator QA.

Volumetric Modulated Arc Therapy (VMAT) QA

Objectives
This course provides training on the VMAT technique, delivery, commissioning and QA for Elekta accelerators.

Course Content
- Rationale for VMAT technique
- Key factors influencing the quality of a VMAT plan
- Advantages and limitations of the VMAT technique
- VMAT delivery on an Elekta accelerator
- Performance, benchmark, and baseline testing of VMAT delivery

Introduction to the Digital Linear Accelerator e-Learning courses

Introduction
The e-Learning course, Introduction to the digital linear accelerator, consists of various modules. The content of the e-Learning course has been packaged in to three separate courses. The three courses are:

- Level 1: Introduction to the digital linear accelerator
- Level 2: Principles of Operation
- Level 3: Control

There is no assessment of competency for this course.

Level 2: The participant will be able to:
- Describe the basic operation of the linear accelerator
- Identify all major assemblies, components, areas and hazards on the machine
- Interrogate the software for simple diagnostic information
- Fault find and repair the low level interlock systems
- Check and set the machine optical systems and services

There is no assessment of competency for this course.

Level 3: The participant will be assessed for their understanding of each module

Level 3 is a prerequisite for the Elekta Oncology Engineer 1 (EOE1) Transition Course. Additional practical assessment will be carried out as part of the EOE1 Transition Course.

Assessment information is covered above only Level 3 has assessments.

Target group
- Administrators
- Hospital Physicists
- Hospital Engineers
- Elekta Field Service Engineers
- Distributor Field Service Engineers
Image-guided Adaptive Brachytherapy for Gynecology Using the Combined Intracavitary-Interstitial Technique

Objective
This leading edge program is given by an expert team led by Prof. Dr. R. Pötter and Prof. Dr. C. Kirisits and is complementary to the ESTRO ‘Image-guided radiotherapy & chemotherapy in gynecological cancer’ course.

Participants obtain comprehensive practical insight into the clinical workflow of 3D image-based brachytherapy for gynecological tumors. Practical issues, solutions and constraints for each participating center are defined during extensive discussions on the practical aspects of implementing 3-D image-based brachytherapy for gynecology.

Content
- Imaging and contouring
- Applicator reconstruction
- Live case (implantation)

Training center and duration
2-day workshop at Medical University of Vienna, Vienna General Hospital (AKH), Vienna, Austria.

Target group
- Radiation Oncologists
- Gynecologists
- Clinical Physicists
- Radiation Technologists

NOTES ON THIS COURSE: Previous participation in the ESTRO teaching course on ‘Image-guided radiotherapy & chemotherapy in gynecological cancer’ is a pre-requisite.

Image-guided Adaptive Brachytherapy for Gynecology

Objective
Participants obtain comprehensive practical insight into the clinical workflow of 3D image-based brachytherapy for gynecological tumors. Practical issues, solutions and constraints for each participating center are defined during extensive discussions on the practical aspects of implementing 3-D image-based brachytherapy for gynecology. Adapted from the European workshops, this program is tailored to the Asian clinical practice of 3D brachytherapy for cervical cancer.

Content
- 3D imaging with MRI and CT protocols
- Contouring
- Applicator reconstruction
- Live case (implantation)

Training center and duration
2-day workshop at various hospitals in Asia, visit www.brachyacademy.com for upcoming workshops.

Target group
- Radiation Oncologists
- Gynecologists
- Clinical Physicists
- Radiation Technologists

NOTES ON THE COURSE: Experience in brachytherapy is a pre-requisite for this course.
**Masterclass: Brachytherapy in Partial Breast Irradiation**

**Objective**
The purpose of this interactive masterclass is to learn more about the growing experience with Accelerated Partial Breast Irradiation (APBI) in order to help attendees embark on a new program of breast brachytherapy or help further strengthen an existing program. Topics covered will include current data about patient selection, state of the art of target definition and delineation, physical aspects and specific breast brachytherapy techniques. Highlights of this course include live case demonstrations, hands on planning and interactive sessions exploring the indications and use of various modalities of APBI, with a focus on interstitial brachytherapy.

**Content**
- Current status of breast cancer brachytherapy
- Patient selection and clinical results of APBI brachytherapy
- APBI techniques and pre-implant considerations

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**Real-time Image Guided HDR Brachytherapy for Prostate**

**Objective**
Participants are provided with an integrated overview of the concept and practice of real-time image guided implants and adaptive planning, and the benefits in comparison to alternative CT-based procedures. They will have the opportunity to obtain hands-on experience through practicing with available systems, and to discuss with the faculty how this treatment modality can be successfully implemented into their clinical environment. The centerpiece of the program is a live case, in which the participants can directly observe a procedure in the operating room.

**Content**
- Live prostate case
- Clinical aspects (e.g. patient selection, clinical indicators, use of functional imaging, treatment planning, benefits of real-time ultrasound based procedure)

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**Robot-assisted Laparoscopic Brachytherapy for Bladder Cancer**

**Objective**
Participants obtain comprehensive practical insight into the clinical workflow of robot-assisted laparoscopic brachytherapy for bladder cancer. Practical issues, solutions and constraints for each participating center are defined during extensive discussions on the practical aspects of implementing the technique.

**Content**
- Patient selection and clinical results
- Co-operation between urologist and radiation oncologist
- Implantation technique
- Video case (implantation)
- Imaging and treatment planning

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**HDR and Electronic Brachytherapy for Skin Cancer**

**Objective**
Participants obtain comprehensive practical insight into the clinical workflow of both HDR as well as electronic brachytherapy for skin cancer. Practical issues, solutions and constraints for each participating center are defined during extensive discussions on the practical aspects of implementing the technique.

**Content**
- Clinical results of skin brachytherapy
- HDR brachy for skin
- Electronic brachy for skin
- Applicator selection, assembly and preparation
- Treatment planning
- Team roles, logistics and infrastructure
- Hands-on diagnosis, planning and applicator positioning
- Live or video treatment case

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**Robot-assisted Laparoscopic Brachytherapy for Bladder Cancer**

**Training center and duration**
1.5-day workshop at Radiotherapie groep / Rijnstate Hospital, Arnhem, The Netherlands.

**Target group**
- Radiation Oncologists
- Urologists
- Clinical Physicians
- Radiation Technologists

**NOTES ON THIS COURSE:** Participation of both Radiation Oncology department AND Urology department is required as is availability of, and expertise, in performing robotic laparoscopy. Also required is experience in catheter placement for brachytherapy.

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**HDR and Electronic Brachytherapy for Skin Cancer**

**Training center and duration**
1.5-day workshop at The Christie, Manchester, UK.

**Target group**
- Radiation Oncologists
- Dermatologists
- Medical Physicists
- Radiographers/Treatment Planner
- Mould Room/Clinical Technologists

**NOTES ON THIS COURSE:** Experience with Oncentra® Brachy is a pre-requisite for this course, as this is the planning system that will be used during the hands-on session.

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**Real-time Image Guided HDR Brachytherapy for Prostate**

**Training center and duration**
2-day workshop at alternating cities in Europe and Asia, visit www.brachyacademy.com for up to date schedule.

**Target group**
- Radiation Oncologists
- Urologists
- Medical Physicists
- Dermatologists
- Radiation Oncologists

**NOTES ON THE COURSE:** Experience with Oncentra® Brachy is a pre-requisite for this course, as this is the planning system that will be used during the hands-on session.

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**Masterclass: Brachytherapy in Partial Breast Irradiation**

**Training center and duration**
1,5-day workshop at St James’s University Hospital, Leeds, UK.

**Target group**
- Radiation Oncologists
- Urologists
- Medical Physicists
- Clinical Physicians
- Radiation Technologists

**NOTES ON THE COURSE:** Experience with Oncentra® Brachy is a pre-requisite for this course, as this is the planning system that will be used during the hands-on session.

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**Real-time Image Guided HDR Brachytherapy for Prostate**

**Training center and duration**
3-day workshop at alternating cities in Europe and Asia, visit www.brachyacademy.com for up to date schedule.

**Target group**
- Radiation Oncologists
- Urologists
- Medical Physicists
- Dermatologists
- Radiation Oncologists

**NOTES ON THE COURSE:** Experience with Oncentra® Brachy is a pre-requisite for this course, as this is the planning system that will be used during the hands-on session.
Essentials in Skin Surface Brachytherapy

Objective
This clinical workshop is focused on improving treatment planning and delivery skills with High Dose Rate Brachytherapy. After completion of the training the participant has knowledge of:
• Patient selection criteria
• How to contour and margin the lesions
• How to select the best applicator for the treatment
• How to properly prepare the patient and the applicators for treatment

Content
• General introduction to HDR for skin surface treatment
• Patient selection criteria
• Applicator selection criteria
• Applicator assembly and preparation

Training center and duration
1.5-day course at The Lynn Cancer Institute, Boca Raton Regional Hospital, Boca Raton, FL, USA.

Target group
• Radiation and Medical Oncologists
• Medical Physicists
• Treatment Planners
• Radiation Technologists
• Dermatologists/Mohs Surgeons
• Oncology Nurses

Flexitron® First Line Service Training

Objective
This course increases the participants knowledge of:
• The basics of the system’s functionality
• The most common service issues
• The various safety aspects
• How to perform planned maintenance
• How to carry out all system calibrations
• How to carry out the source exchange

Content
• Mechanics and electronics
• Calibration procedures
• Planned maintenance
• Corrective service and troubleshooting
• Emergency procedures

Training center and duration
2-day course at Elekta Veenendaal, The Netherlands

Target group
Hospital Service Engineers

NOTES ON THE COURSE: The participant must have basic knowledge of:
• Electronics on component level
• Mechanics
• Microsoft® Windows® and network configuration
• Radiation Safety principles
Recommended knowledge: maintenance of medical equipment

microSelectron® Digital

Objective
This course increases the participants knowledge of:
• The basics of the digital system’s functionality
• The most common service issues
• The various safety aspects
• How to perform planned maintenance
• How to carry out all system calibrations
• How to carry out the source exchange

Content
• Mechanics and electronics
• Calibration procedures
• Preventive maintenance
• Corrective service and troubleshooting
• Emergency procedures
• TCS 3 software installation and programming

Training center and duration
4-day course at Elekta Veenendaal, The Netherlands

Target group
Hospital Service Engineers

NOTES ON THE COURSE: The participant must have basic knowledge of:
• Electronics on component level
• Mechanics
• Microsoft® Windows® and network configuration
• Radiation Safety principles
Recommended knowledge: maintenance of medical equipment

Oncentra® Brachy

Objective
Participants obtain in-depth information and instructions for increased accuracy and effectiveness of brachy treatment planning. Great attention is given to providing a comprehensive understanding of the applications of the system and how to apply them clinically.

Highly trained professionals with extensive clinical and academic backgrounds deliver these lectures and hands-on practice. After the completion of the course, the participants will have a greater understanding of the Anatomy Modeling, Connectivity Module, Brachy module, Applicator Modeling and Evaluation Module and their application in a clinical setting.

Content
• Anatomy Modeling (contouring and image registration)
• Connectivity (import data)
• Reconstruction, optimization and normalization
• Plan analysis and evaluation
• Physics aspects (algorithms)
• Applicator Modeling (optional)
• Export of patient data to supported afterloader units

Training center and duration
4-day course at Elekta Veenendaal, The Netherlands

For locations in the US, please check www.elekta.com/elektacare

Target group
• Medical Physicists
• Treatment Planners
• Radiation Therapists using Oncentra® treatment planning software

NOTES ON THE COURSE: The participant must be familiar with computer-based brachytherapy planning techniques.
SOFTWARE

MOSAIQ® Reporting – Introduction

Objective
This course provides training in the use of Crystal Reports and MOSAIQ Data Dictionary to generate reports. This course enables the development of data management, retrieval, and report writing skills for analysis of departmental performance and quality outcomes.

Content
• MOSAIQ vs Crystal Reports
• Run reports
• Configure Crystal Reports software
• MOSAIQ Database/Relational Database

• Effective report writing
• Report layout within Crystal Reports
• Advanced formatting techniques
• Crystal Reports error messages

Training center and duration
2-day training at regionally established location

Target group
Data Administration Staff

NOTES ON THIS COURSE: Basic familiarity with MOSAIQ is required.

MOSAIQ® Reporting – Intermediate

Objective
This course provides more in-depth training in the use of Crystal Reports for reporting. This course covers report maintenance and configuration techniques.

Content
• Modify embedded Oncology Management reports
• Port modified embedded reports to a different database version
• Port custom reports to a different database version
• Configure custom reports to run from the MOSAIQ Report Navigator

• Understand report design requirements
• Translate design requirements to Crystal Reports functions
• Design reports to user specifications

Training Centers and Duration
2-day training at regionally established location

Target group
Data Administration Staff

NOTES ON THIS COURSE: MOSAIQ Reporting - Introduction is a pre-requisite
MOSAIQ® Reporting – Advanced

Objective
During this one-day hands-on course, participants build on skills gained through MOSAIQ Reporting – Introduction and Intermediate courses to learn advanced techniques for reporting against MOSAIQ Assessment (eVAL) data.

Content
- Review MOSAIQ Observation Definition Configuration (Chart Builder)
- Discuss reporting considerations when configuring Observation Definitions
- Relate Observation Definitions to underlying database tables
- Report individual Observations (e.g., Ht, Wt, BSA, etc.)
- Report groups of Observations (e.g., Assessment Views)
- Develop advanced reporting techniques including: multiple database table aliases, subreports, variables, etc.

Training center and duration
1-day training at regionally established location

Target group
Data Administration staff

NOTES ON THIS COURSE: The following are pre-requisites:
- MOSAIQ Reporting – Introduction
- MOSAIQ Reporting – Intermediate

MOSAIQ® – Under the Hood

Objective
This course enhances the understanding of the MOSAIQ architecture and its components, networking and data flow for hospital IT staff.

Content
- Define the role MOSAIQ plays in your oncology center
- Discuss the server architecture of the MOSAIQ installation
- Discuss the different MOSAIQ workstations and their roles within the oncology center
- Trace the DICOM data flow from treatment planning, MOSAIQ EMR and treatment delivery
- Discuss the role a Sequencer plays in the treatment delivery process
- Identify the components and configuration of Sequencer workstations

Duration
2-day training at regionally established location

Target group
Hospital IT Staff/Systems Administrators

NOTES ON THIS COURSE: Attendees for the course should be familiar with maintaining servers and peripherals in a complex network environment.

Monaco® Sim – Application

Objective
This course provides applications training in the use of Monaco for CT simulation, contouring and plan review.

Content
- DICOM Import
- Structure Contouring
- Beam and Port Placement
- CT Simulation Planning
- Image Fusion
- Plan Review and Comparison
- 4D tools

Duration
1-day training at regionally established location (Accredited by ASRT and MDCB)

Target group
- Medical Physicists
- Treatment Planners

NOTES ON THIS COURSE: Review the related Monaco elearning courses, preferred

Monaco® 3D Application

Objective
This course provides applications training in the use of Monaco for 3D treatment planning. The course provides an understanding of the software enabling the user to efficiently create effective 3D treatment plans.

Content
- DICOM Import
- Structure Contouring
- Beam and Port Placement
- CT Simulation Planning
- Image Fusion
- Plan Review and Comparison
- 4D tools
- 3D Planning

Duration
2-day training at regionally established location (Accredited by ASRT and MDCB)

Target group
- Medical Physicists
- Treatment Planners

NOTES ON THIS COURSE: The following are pre-requisites:
- Review the related Monaco elearning courses, preferred
- Monaco treatment planning system installed in your clinic
Monaco® 3D/IMRT/VMAT Planning and Tools

Objective
This course provides applications training in the use of Monaco for 3D and IMRT/VMAT treatment planning. This course provides an understanding of the Monaco software enabling the user to efficiently create effective 3D/IMRT/VMAT treatment plans.

Course Content
- Review of DICOM Import, Contouring, 4D, Fusion and Plan Review
- 3D planning
- IMRT Planning
- VMAT Planning (included based on need)

Duration
5-day training at regionally established location (Accredited by ASRT and MDCB)

Target group
- Medical Physicists
- Treatment Planners

NOTES ON THIS COURSE: The following are pre-requisites:
- Review the related Monaco elearning courses, preferred
- Understanding of IMRT treatment planning, preferred
- Monaco treatment planning system installed in your clinic

Monaco® Physics

Objective
This course provides training on the algorithms and learn to use QA Tools available in Monaco. This course provides an understanding of algorithms used in dose calculation, optimization and segmentation.

Course Content
- Monaco Beam Modeling
- MLC Parameter Adjustments
- Monaco Algorithms
- Monitor Unit Calculation
- Patient Model

Duration
2-day training at regionally established location (Accredited by CAMPEP)

Target group
Medical Physicists

NOTES ON THIS COURSE: The following are pre-requisites:
- Review the Monaco Basics elearning modules or attend the Monaco Application training course
- Monaco treatment planning system installed in your clinic

Monaco® Stereotactic Planning

Objective
This course provides applications training in the use of Monaco for stereotactic cones with 3D static arc delivery. Course also includes stereotactic MLC planning for VMAT and dynamic conformal arc delivery types.

Course Content
- Settings for Stereotactic Cone Configuration
- Visualization with Stereotactic Cones
- Beam Setup
- Dose Prescription
- Application of Dose Constraints for DCA and VMAT plans
- Application of Optimization and Sequence Parameters

Duration
1.5-day training at regionally established location

Target group
- Medical Physicists
- Treatment Planners

Prerequisites
- Attend Monaco Applications training course
- Understanding of stereotactic planning preferred

Pre- or Post- requisites (physicists)
- Attend Monaco Physics training course

XiO® – Application

Objective
This course provides applications training in the use of XiO® for treatment planning. The course provides an understanding of the software enabling the user to efficiently create effective treatment plans.

Content
- Structure Contouring
- Digitized Contour-based Planning
- 2D Irregular Field Planning
- 3D External Beam Planning
- Brachytherapy (Prostate and GYN)
- Dose Volume Histogram tools
- IMRT Overview

Training center and duration
5-day in-house training at Elekta training facilities (Accredited by ASRT and MDCB)

Target group
- Physicists
- Treatment Planners

NOTES ON THIS COURSE: The following are pre-requisites:
- XiO treatment planning system installed in your clinic
- 3D treatment planning experience preferred
XiO® – Physics

Objective
This course provides training in beam modeling procedures and data acquisition requirements for the XiO Treatment Planning system. In addition, basic applications training in treatment planning (application) is provided.

Content
- Structure Contouring
- 3D External Beam Treatment Planning
- Data Acquisition Requirements
- Introduction to Dose Calculation Algorithms
- Introduction to Beam Modeling
- Wedge Modeling
- Monitor Unit calculations
- IMRT Overview/QA Tools

Training center and duration
5-day training at regionally established location (Accredited by CAMPEP)

Target group
Medical Physicists

NOTES ON THIS COURSE: The following are pre-requisites:
- XiO treatment planning system installed in your clinic
- 3D treatment planning experience
- Some beam data collection experience


XiO® IMRT – Application

Objective
This course provides applications training in IMRT treatment planning utilizing the XiO Treatment Planning System. The course provides an understanding of the IMRT software enabling the user to efficiently create effective IMRT treatment plans.

Content
- Contouring for IMRT Planning
- Beam Placement
- The IMRT Prescription
- Optimization
- Segmentation/Compensation
- QA of IMRT Plans

Training center and duration
3-day training at regionally established location (Accredited by ASRT and MDCB)

Target group
Medical Physicists

NOTES ON THIS COURSE: The following are pre-requisites:
- XiO-Application Training Course or at least 3-6 months experience using XiO
- XiO Treatment Planning system installed in your clinic
- Understanding of IMRT treatment planning preferred


XiO® IMRT – Application and Physics

Objective
This course provides IMRT specific data collection requirements, beam modeling and applications training in IMRT treatment planning utilizing the XiO® Treatment Planning System. The course provides an understanding of the IMRT software enabling the user to efficiently create effective IMRT treatment plans.

Content
- Data Acquisition Requirements for IMRT Beam Modeling
- Contouring for IMRT Planning
- Beam Placement
- The IMRT Prescription
- Optimization
- Segmentation/Compensation
- QA of IMRT Plans

Training center and duration
4-day training at regionally established location (Accredited by ASRT and MDCB)

Target group
Medical Physicists

NOTES ON THIS COURSE: The following are pre-requisites:
- XiO-Application Training Course or at least 3-6 months experience using XiO
- XiO Treatment Planning system installed in your clinic
- Understanding of IMRT treatment planning preferred


XiO® Proton – Application

Objective
This course provides applications training in the use of XiO for Proton treatment planning. The course provides an understanding of the software enabling the user to efficiently create effective proton treatment plans.

Content
- Structure Contouring
- Broad Beam Treatment Planning
- Introduction to Spot Scanning and IMPT treatment Planning
- IMRT Overview
- Plan Evaluation tools
- Ion Plan Export

Training center and duration
5-day training at regionally established location (Accredited by ASRT and MDCB) Target Group
- Medical Physicists
- Treatment Planners

NOTES ON THIS COURSE: The following are pre-requisites:
- XiO treatment planning system installed in your clinic
- Treatment planning experience
Atlas-Based Auto Segmentation™ (ABAS)

Objective
This course provides applications training in the use of the Atlas-based Auto Segmentation software for automatic contouring. Course will also cover setup and configuration of your system.

Content
- Setup DICOM Import/Export
- Review User Interface
- Set up Atlas, Patient and Results Data Locations

CMS.Direct Products

Objective
This course provides training in the maintenance of the CMS.Direct family of products. CMS.Direct products provides solutions that support the evolving workflow and data management requirements of clinics today.

Content
- CMS.Direct Access™
- CMS.Direct MultiVue™
- CMS.Direct Storage™

Training center and duration
On-site training duration varies

Target group
Systems Engineers

ERGO++™ – Applications

Objective
This course provides applications training in the use of ERGO++ for treatment planning. The course provides an understanding of the software enabling the user to efficiently create effective treatment plans.

Content
- DICOM RT Import & Export
- Database Managing Image Processing (Contouring, Image Fusion)
- Stereotactic Calibration & QA
- Planning with Stereotactic Cones & Managing Cone Dosimetric Data
- Static and Dynamic Conformal planning
- Static and Dynamic AMOA/IMRT planning
- VMAT approach for planning with Elekta
- Plan Summation and Comparison

Training Centers and Duration
5-day training at regionally established location

Target group
- Medical Physicists
- Treatment Planners

NOTES ON THIS COURSE: The following are pre-requisites
- ERGO++-Application Training Course or at least 3-6 months experience using ERGO++
- Applicable licenses activated

ERGO++™ – Follow Up Applications

Objective
This course provides follow up applications training in the use of ERGO++ specific to stereotactic radiosurgery treatment planning. The course provides an understanding of the software and entire stereotactic workflow, enabling the user to efficiently create effective treatment plans.

Content
- DICOM RT Import & Export
- Database Managing Image Processing (Contouring, Image Fusion)
- Stereotactic Calibration & QA
- Planning with Stereotactic Cones & Managing Cone Dosimetric Data
- Static and Dynamic Conformal planning
- Static and Dynamic AMOA/IMRT planning
- VMAT approach for planning with Elekta
- Plan Summation and Comparison

Training center and duration
3-day on-site training

Target group
- Medical Physicists
- Treatment Planners

NOTES ON THIS COURSE: The following are pre-requisites
- ERGO++ Application Training Course or at least 3-6 months experience using ERGO++
- Applicable licenses activated
ERGO++ ™ – Localizer

Objective
This course provides applications training in the use of ERGO++ Localizer for stereotactic head frame localization. The course provides an understanding of the software, enabling the user to efficiently and effectively localize external stereotactic head frames.

Content
• DICOM Import/Export
• Software Navigation
• Localization of Calibrated Images

Training Centers and Duration
2-day on-site training

Target group
• Medical Physicists
• Treatment Planners

NOTES ON THIS COURSE: Applicable licenses must be activated to take this course.

Clarity® Handheld Pelvic Courses (including prostate)

Objective
This course provides training on the Clarity system workflow for pelvic anatomical sites using transabdominal scanning.

Course Content
• Create reference scan in CT room
• Perform image fusion and contouring for IGRT
• Perform daily IGRT in treatment room
• Perform system calibration and QA
• Practice ultrasound scanning
• Review scans
• Review Reference Plans
• Learn advanced features of the system

Training Centers and Duration
5-day course at customer site OR 3-day course at a LINC center with a 2-day follow up at customer site (where available)

Target group
• Radiation Therapists
• Treatment Planners
• Physicists
• Radiation Oncologists

Clarity® Handoscan Course (for prostate)

Objective
This course provides training on the Clarity system workflow for prostate using the Clarity Autoscan probe.

Course Content
• Create reference scan in CT room
• Perform image fusion and contouring for IGRT
• Perform daily IGRT in treatment room
• Perform system calibration and QA
• Practice ultrasound scanning
• Review scans
• Review Reference Plans
• Learn advanced features of the system

Training Centers and Duration
5-day course at customer site OR 3-day course at a LINC center with a 2-day follow up at customer site (where available)

Target group
• Radiation Therapists
• Treatment Planners
• Physicists
• Radiation Oncologists

Clarity® Handheld Superficial Courses (including breast)

Objective
This course provides training on the Clarity system workflow for breast and other superficial tissue scanning.

Course Content
• Create reference scan in CT room
• Perform image fusion and contouring for IGRT
• Perform daily IGRT in treatment room
• Perform system calibration and QA
• Practice ultrasound scanning
• Review scans
• Review Reference Plans
• Learn advanced features of the system

Training Centers and Duration
5-day course at customer site OR 3-day course at a LINC center with a 2-day follow up at customer site (where available)

Target group
• Radiation Therapists
• Treatment Planners
• Physicists
• Radiation Oncologists

NOTES ON THIS COURSE: Applicable licenses must be activated to take this course.

Clarity® Handheld Superficial Courses (including breast)
Elekta Neuromag® Introductory Course

Objective
This course provides an introduction to Elekta Neuromag magnetoencephalography (MEG) for clinical and/or research purposes.

Content
• Principles of Elekta Neuromag magnetoencephalography
• Physics related to Neuromag magnetoencephalography
• Overview of software and hardware components of the system
• Preparation and performance of Elekta Neuromag magnetoencephalography measurements
• Data acquisition
• Data analysis
• Lectures applicable to specialties of attendees

Training center and duration
5-day course held at several training sites around the world

Target group
• Neurologists
• Neurosurgeons
• Epileptologists
• Neurophysiologists
• Neuropsychologists
• Neuropsychiatrists
• Neuroscientists
• Biomedical Physicists
• Biomedical Engineers
• EEG/MRI Technologists

Elekta Neuromag® System Start

Objective
This training is conducted on-site at new installations and upgrades of Elekta Neuromag magnetoencephalography (MEG) devices and provides a practical system start program with both lectures and hands-on sessions.

Content
• Principles of magnetoencephalography
• Overview of software and hardware components of the systems
• Lectures applicable to site specialty (optional)
• Numerous supervised practical session on workflow for spontaneous and evoked response including
  – Patient/subject preparation
  – Stimulator paradigms and set-ups
  – Data acquisition
  – Data analysis and set-ups

Training center and duration
10-day course at customer site

Target group
• Neurologists
• Neurosurgeons
• Epileptologists
• Neurophysiologists
• Neuropsychologists
• Neuropsychiatrists
• Neuroscientists
• Biomedical Physicists
• Biomedical Engineers
• EEG/MRI Technologists
Elekta Neuromag® On-Site Consultancy (3 Days)

Objective
Delivered by expert Elekta Neuromag magnetoencephalography (MEG) consultants, this module provides existing users further optimization of usage and applications of Elekta Neuromag magnetoencephalography (MEG). This is a tailored three day course with lectures and supervised hands-on session to match the interest of attendees specialties.

Content
• Hands-on session applicable to specialties of attendees
• Site-specific data acquisition
• Data analysis optimization
• Lecture on mathematical and scientific methods behind Elekta Neuromag magnetoencephalography (MEG)
• Interference suppression methods

Training Centers and Duration
3-day course help at Elekta Neuromag site

Elekta Neuromag® On-site Consultancy (5 Days)

Objective
Delivered by expert Elekta Neuromag magnetoencephalography (MEG) consultants, this module provides existing users further optimization of usage and applications of Elekta Neuromag magnetoencephalography (MEG). This is a tailored 5-day course with lectures and supervised hands-on session to match the interest of attendees specialties.

Content
• Hands-on session applicable to specialties of attendees
• Site-specific data acquisition
• Data analysis optimization
• Site-specific data analysis
• Lecture on mathematical and scientific methods behind Elekta Neuromag magnetoencephalography (MEG)
• Interference suppression methods
• Lectures applicable to specialties of attendees

Training Centers and Duration
5-day course help at Elekta Neuromag site.

Target group
• Neurologists
• Neurosurgeons
• Epileptologists
• Neuropyschologists
• Neuropsychiatrists
• Neuroscientists
• Biomedical Physicists
• Biomedical Engineers
• EEG/MRI Technologists

NOTES ON THIS COURSE: The following are pre-requisites:
• Elekta Neuromag Introductory Program
• Six months usage of Elekta Neuromag is recommended
Leksell Stereotactic Neurosurgery Training

Objective
This course trains neurosurgeons to be proficient in the use of Leksell Stereotactic System® and to further develop their skills in the use of the system. The clinical part of the training focuses on functional disorders.

Content
- General principles of stereotaxy, visualization and localization
- Information and demonstration of Leksell Stereotactic System
- Scientific lectures that focus on basic stereotactic techniques for different indications
- Methods for target localization
- Stimulation, DBS implantation and lesioning techniques
- Interactive scientific lectures and observations of clinical procedures
- Discussions on cases from the participants
- Workshop sessions with:
  - Leksell Stereotactic System
  - Leksell SurgiPlan®
  - Leksell® Neuro Generator
  - Elekta Microdrive™
  - Elekta Target Simulator

Training center and Duration
3-day course at Academisch Medisch Centrum, Department of Neurosurgery, Amsterdam, The Netherlands

Target group
- Neurosurgeons
- Neurologists
- Nurses
- Anyone who is interested in Leksell Stereotactic Neurosurgery

NOTES ON THIS COURSE: This course is not available for U.S. based customers.

Stereotactic Neurosurgery Course

Objective
To enhance the course participant’s knowledge of stereotactic neurosurgery and deep brain stimulation for different indications. During hands-on sessions the course participants will further develop their skills in the use of Leksell Stereotactic System®.

Content
- History of stereotactic and functional neurosurgery
- Scientific lectures that focus on stereotactic techniques for different indications
- Methods for target localization
- Demonstration of how Leksell Stereotactic System is used during stimulation, DBS implantation and lesioning techniques.
- Outline and observation of DBS procedure
- Workshop sessions with:
  - Leksell Stereotactic System
  - Leksell SurgiPlan®

Training center and duration
2-day course at Department of Neurological Surgery, Nihon University School of Medicine, Tokyo, Japan.

Target group
The course is held in Japanese tailored for Neurosurgeons and Neurologists

NOTES ON THIS COURSE: This course is not available for U.S. based customers.

DISCLAIMER
Elekta also collaborates with experts and leading hospitals worldwide to provide education and training. Elekta is not held responsible for any clinical advice given during these training sessions.