

## Course Objectives

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By the end of this training course, attendee should be able to:

- Install and setup MapCHECK 2 hardware and software
- Successfully perform array and absolute dose calibrations
- Take IMRT QA measurements using MapCHECK 2
- Import TPS dose maps for comparative analysis
- Compare and analyze MapCHECK 2 measured doses with planned dose utilizing multiple techniques
- Print and export comparative analysis data graphs and reports
- Demonstrate an understanding of the MapCHECK 2 reference documentation, online help, and options

## Course Outline

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### Module 1: About

- 1.1 Intended Use
- 1.2 Description
- 1.3 Application

### Module 2: Installation & Setup

- 2.1 Product Components
  - 2.1.1 Documentation
  - 2.1.2 Options and Accessories
- 2.2 Install MapCHECK Hardware
- 2.3 Install MapCHECK Software
  - 2.3.1 Program Location and Folders
- 2.4 Licensing Activation & Connection
  - 2.4.1 Connecting to a Port

### Module 3: User Interface

- 3.1 Display Window Components
- 3.2 Online Help
- 3.3 Context Menu
- 3.4 Opening Files
- 3.5 Panel Operations
- 3.6 Chart/Data Appearance
- 3.7 Data Orientation Manipulation
- 3.8 Using Set 1 Bottom Toolbar
- 3.9 Program Preferences

### Module 4: Calibration (Requires LINAC)

- 4.1 Background Measurement
- 4.2 Array Calibration
  - 4.2.1 Perform, View, Save, Print, Load, and Set Default
- 4.3 Absolute Dose Calibration
  - 4.3.1 Add, Select, Change, Set Default, and Remove

### Module 5: Taking Measurements (Requires LINAC)

- 5.1 About Measurements
- 5.2 Positioning MapCHECK 2 for an Exposure
- 5.3 Buildup and Physical Depth
- 5.4 Loading Calibration Files and Settings

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## Course Outline

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- 5.5 Making a Measurement
- 5.6 Saving a Measurement
- 5.7 MapCHECK File Format

### Module 6: Treatment Planning System

- 6.1 Treatment Plan Import
  - 6.1.1 TPS Dose Maps, DICOM, and EPID files
  - 6.1.2 Filter Selection
  - 6.1.3 Plan Grid Resolution
  - 6.1.4 Alignment and Offset
  - 6.1.5 Depth of Field
- 6.2 Preparing Dose Maps for Import

### Module 7: Analysis

- 7.1 Compare Measured with Planned
- 7.2 Select Graph Types
- 7.3 Compare Toolbar Settings
  - 7.3.1 DTA (Distance To Agreement)
  - 7.3.2 Gamma
  - 7.3.3 Relative and Absolute
  - 7.3.4 % Difference, DTA, and Threshold
  - 7.3.5 Calculated Shift
- 7.4 Comparing Two MapCHECK 2 Measurements
- 7.5 Pick Auto-Normalization Point
- 7.6 Profile Panel
  - 7.6.1 Dose Value Display
  - 7.6.2 Beam QA Display
  - 7.6.3 Histograms
- 7.7 Patient Plan and Defaults
- 7.8 Batch Analysis with File Manager
- 7.9 Save a Session
- 7.10 Print Reports
- 7.11 Eliminating Sources of Error

### Module 8: Support Services

- 8.1 Contacting Customer Support

### Module 9: Advanced Features (Optional)

- 9.1 Options Overview
- 9.2 Combining Measured Files
  - 9.2.1 Merged and Composite Files
- 9.3 Combining Non-Measured Files
- 9.4 SunMETRIC
- 9.5 EPID File Import
- 9.6 Beam QA
- 9.7 MLC QA
- 9.7 Structure Filter
- 9.8 Advanced Film Analysis

Customer Acceptance: \_\_\_\_\_  
SNC Trainer: \_\_\_\_\_

Date: \_\_\_\_\_  
Print: \_\_\_\_\_