

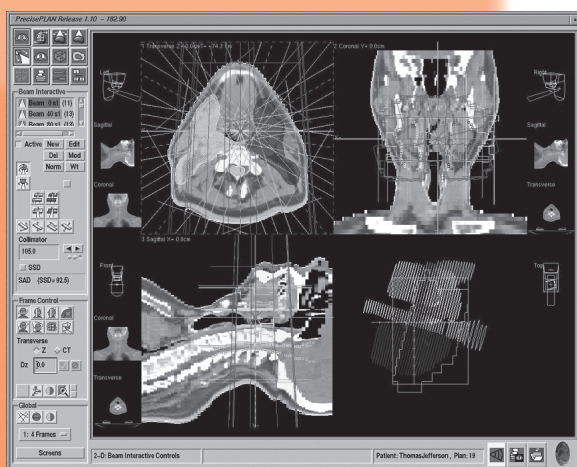
Comprehensive Dosimetry Training

**Medical Dosimetry I:
An Introductory Course**
February 17-20, 2010
August 18-21, 2010
and

**Medical Dosimetry II:
Treatment Planning and Plan
Evaluation Course**
May 4-8, 2010
November 16-20, 2010

Includes:

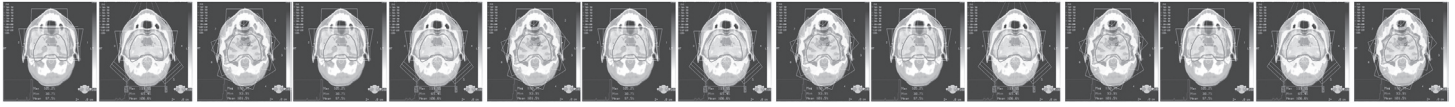
- ***hands-on training***
- ***interactive workshops***
- ***prerequisite webinar(s)***



**I - Introductory
II - Compulsory**

MTMI

Medical Technology
Management Institute



Medical Dosimetry I: An Introductory Course

Although entitled, Introductory(I), this all-inclusive course is far from basic. These intensive four days are a combination of didactic training, workshops and hands-on labs. Modeled after the AAMD's Medical Dosimetry Education Program guidelines, this course is sure to satisfy attendees seeking a thorough understanding of complex dosimetry principles. The course will be beneficial for both new comers to Medical Dosimetry and established Dosimetry practitioners alike. The workshops and labs, facilitated by physicists and certified dosimetrists, will provide attendees with first-hand clinical experience from within practical settings. The content is thorough and specific. Not only will this help fulfill the need of didactic training but will provide clinical insights necessary to implement knowledge gained in a practical setting, as well as utilize the knowledge gained towards professional development and/or CMD certification. MTMI has coordinated their comprehensive Dosimetry curriculum in such a manner that individuals or facilities can take full advantage of each component at their own pace or at the desired level of development needed. Once professional objectives have been achieved, attendees are ready to advance into the Compulsory (II) component of this comprehensive Dosimetry curriculum.

Objectives

At the completion of this course, participants will be able to:

- Integrate knowledge of dosimetric principles and understanding of radiation dose distributions into day-to-day delivery practices.
- Describe 2D and/or 3DCRT treatment planning approaches commonly used for various anatomical regions.
- Explain various methods for photon planning and impact of field configurations on isodose distributions.
- Define complex factors, recognize options for their use, and interpret their dosimetric impact.
- Design computer generated treatment plans.
- Formulate methods in the plan optimization process and evaluate effectiveness of plans.
- Appreciate the impact of various plan designs on dose limiting structures & organ tolerances.
- Utilize applied mathematics to calculate doses to defined targets and solve complex mathematic equations.
- Function effectively within dosimetry under supervision of a qualified physicist or dosimetrist, incorporate sound dosimetry practices within the technical setting.
- Participate or assist in dosimetric activities.
- Serve as a mentor within Medical Dosimetry.

Note:

- Calculator class & Applied Math webinars are **required**
- Nuclear Physics webinar is **required**
- Radiobiology webinar is **recommended**
- Radiation Safety/Radiation Protection (non-isotope) is **recommended**

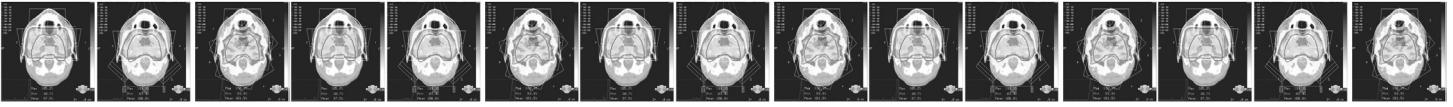
go to www.mtmi.net for information

FACULTY

Don Carlson, MD, MS
Cyndy Ciriacks, BS, CMD, RT(R)(T)
Anand Krishnamurthy, MS
Nishele Lenards, MS, CMD, RT(R)(T)
Kristie Slattery, CMD, RT(R)(T)

Continuing Education Credit

This course provides 28 hours of Category A credits for Radiation Therapists recognized by the ARRT and 28 continuing medical education credits for Certified Medical Dosimetrists recognized by the MDCB. A certificate of attendance will be provided for each individual upon completion of the course. All attendees must attend the entire course to receive full credit.

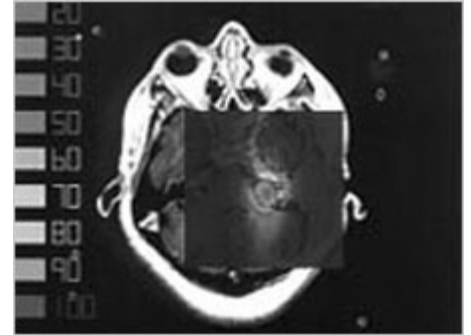


Medical Dosimetry I: An Introductory Course

Schedule

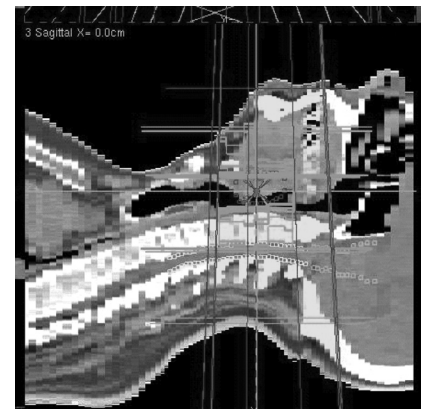
••••• Day One •••••

- Introduction - Defining Dosimetry, Professional Relations and Responsibilities
- **Workshop:** Applied Mathematics Review
(see registration page for prerequisite webinar)
- Nuclear Physics Overview
(see registration page for prerequisite webinar)
- Treatment Modalities, Clinical Management
- Treatment Preparation: Set-up/Positioning, Data Acquisition and Other Essential Imaging
- 2D/3DCRT Concepts
- Applied Math Quiz and Review



••••• Day Two •••••

- Beam Modifying Devices
- Clinical Management - Multi-field Breast Set-up
- Treatment Calculation/Case Review
- Isodose Distributions
- Beam Modifications of Complex Factors
- General Treatment Principles
- Treatment Planning Preparation

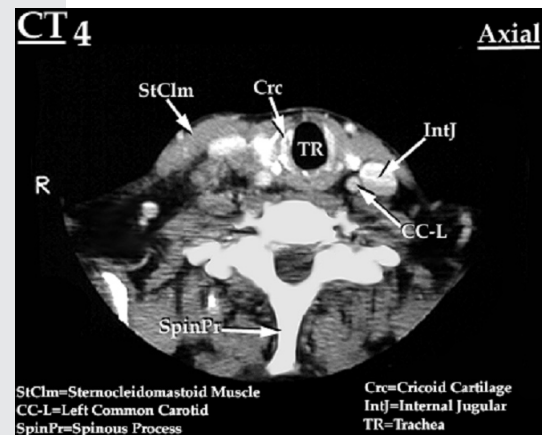


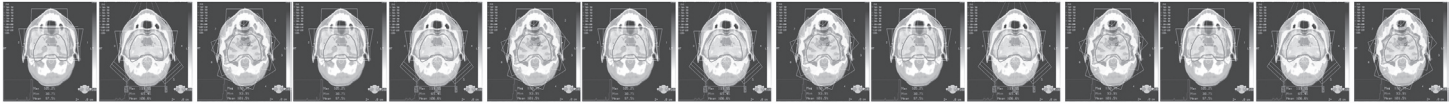
••••• Day Three •••••

- 3DCRT for Breast
- Clinical Oncology Management - Head and Neck Disease
- Computers and Networking
- Introduction to IMRT Treatment Planning
- Course Final Exam and Review
- **Workshop:** Clinical Cases

••••• Day Four •••••

- Clinical Site(s) - Interactive Treatment Planning Labs
- Pinnacle, Eclipse, CMS





Medical Dosimetry II: Treatment Planning and Plan Evaluation Course

As complexity within radiation therapy continues to escalate, so do the added demands and pressures being placed on facilities for having adequate numbers of personnel that are highly skilled. There are increased demands being placed on Dosimetrists and Physicists on their ability to accurately define treatment volumes, avoidance of critical structures, selection of planning techniques, plan optimization and plan evaluation for effective delivery. Additionally, the time intensiveness of planning can constrain their ability to be present within the clinic despite the need for their advisement on technical issues. IMRT and IGRT have emphasized the need for all care-givers to have a keen understanding in the overall planning and delivery processes, as well as the potential ramifications for inconsistencies thereof, especially important when using smaller targets at escalated doses. This Compulsory course will focus on key issues as you evolve from 3DCRT to IMRT, heightening understanding and performance for either a novice or experienced Dosimetrists as well as Therapists. The didactic content, covering various sophisticated planning principles, is essential for heightening one's performance in their day-to-day practice. Attendees and/or facilities seeking professional development opportunities and/or in preparation for the MDCB certification exam are encouraged to attend. This course is an excellent precursor to the upcoming Review segment (III) in MTMI's comprehensive Dosimetry curriculum.

Objectives

At the completion of this course, participants will be able to:

- Define appropriate volumes, with avoidance of critical structures, essential for 3DCRT and/or IMRT planning in CNS, thorax, abdomen and pelvis.
- Formulate advanced computer generated plans, using multiple isocenters, complex factors, abutting fields, gaps, heterogeneity corrections, etc.
- Summarize treatment planning concepts 2D, 3DCRT and/or IMRT and differentiate advantages of each.
- Detect problems commonly encountered during 3DCRT/IMRT planning and take appropriate corrective measures.
- Apply knowledge of advanced practices into effective treatment regimes.
- Demonstrate how utilizing Dose volume Histogram (DVH) data effectively evaluates treatment plans.
- Describe IMRT QA practices.
- Emphasis on electron beam physics and treatment planning.

Note:

- Surface & cross-sectional anatomy webinars are **required**

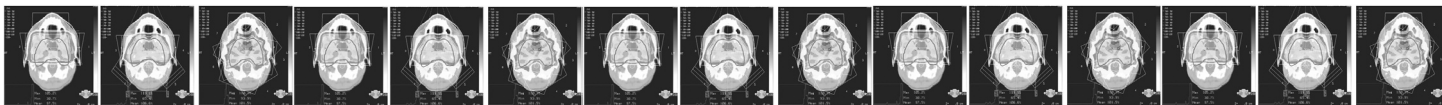
Visit our website for other recommended webinars.

FACULTY

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Marisha Sheehan, CMD, RT(T)

Continuing Education Credit

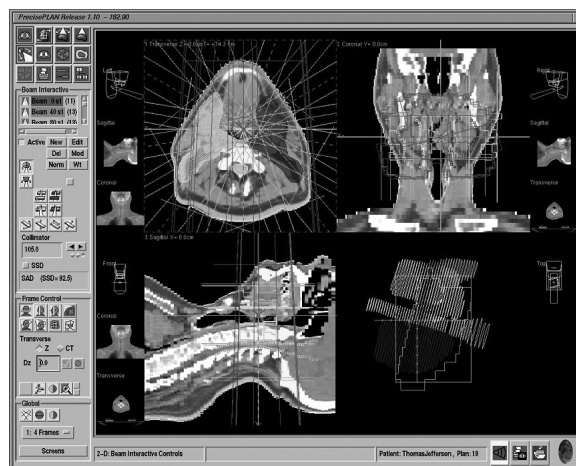
This course provides 37 continuing medical education credits for Certified Medical Dosimetrists recognized by the MDCB and 37 hours of Category A credits for Radiation Therapists recognized by the ARRT. A certificate of attendance will be provided for each individual upon completion of the course. All attendees must attend the entire course to receive full credit.



Medical Dosimetry II: Treatment Planning and Plan Evaluation Course

••• Day One •••••

- Introduction - Professional Relations and Responsibilities
- Three Dimensional Imaging for RX Planning
- Treatment Preparation: ICRU Guidelines
- Dose/Units/Prescription
- Overview Surface & Cross-Sectional Anatomy
- **Hands-on Lab:** Computer Generated Contouring (see registration page for prerequisite webinar)
- Specialized Treatment Planning Procedures



••• Day Two •••••

- Correlation of Cross-Sectional Anatomy with MRI/PET for Treatment Planning
- IMRT Planning Techniques
- Treatment Preparation: Beam Placements
- Plan Implementation
- **Workshop: Plan Eval & Comparison**
- TPS Quality Assurance
- Computers and Networking



••• Day Three •••••

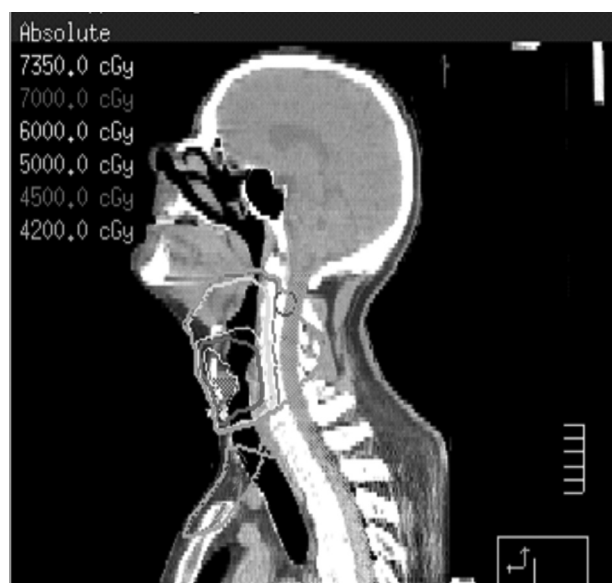
- Electron Beam Therapy
- Clinical Characteristics of Electron Beams
- Isodose: Electrons
- **Workshop:** Treatment Computations
- Calculations Electrons
- Total Skin Electron
- Electron Arcs
- IMRT Quality Assurance

••• Day Four •••••

- **Workshop:** Applied Mathematics/Review (see registration page for prerequisite webinar)
- Photon Isodose Overview
- Complex Factors EBRT
- Dose Determination/Instrumentation EBRT
- Course Exam and Review
- **Workshop:** Treatment Planning Clinical Cases

••• Day Five •••••

- Clinical Site Visit: Treatment Planning Labs
Pinnacle, Eclipse, CMS



Registration

To register for this course:

- ☎ go to www.mtmi.net or ☎ complete the registration form below and
- ✉ mail it with your tuition to **MTMI**, or
- ☎ call **(800) 765-6864** using MasterCard or Visa, or
- ☎ fax the form to **(262) 717-9171** w/credit card info. A special advance price for those registering and paying prior to 21 days before the course is listed in tuition breakdown.
- Refunds, minus a \$50 processing fee, will be granted for cancellations received prior to 3 days before the course.
- Cancellations received within 3 days of the course will receive a credit toward a future MTMI program, minus the \$50 processing fee. No refunds will be made after the course. MTMI reserves the right to cancel any scheduled program because of low advance registration or other reasons. MTMI's liability is limited to a refund of any program tuition paid. MTMI recommends that attendees use refundable airline tickets. In case of cancellation of a seminar for any reason, MTMI is not responsible for travel costs incurred by attendees including non-refundable airline tickets.

Sponsorship

MTMI recognizes the educational support of:



Radiation Oncology Systems



Location & Accommodations

Course held at the MTMI Education Center

20900 Swenson Dr.,
Suite 650
Waukesha, WI 53186



Sleeping rooms at the Marriott West

W231 N1600 Corporate Court
Waukesha, WI 53186
262-574-0888 (front desk)
www.marriott.com/mkemw
Room Rate: single \$98, double \$121
Reservations can be made 2 weeks prior to course. To assure availability, make reservations early.

For telephone reservations call:
877-651-7666

Attendees must make their own reservations for the airport shuttle. Contact "Go Airport Connection" at 800-236-5450

Marriott reservation includes:

- airport shuttle
- daily shuttle to MTMI and back to the Marriott
- breakfast buffet
- high speed internet access
- microwave & refrigerator (upon availability)
- reception on first night of each course

Membership

Membership in the Medical Technology Management Institute includes:

- discounts on **MTMI** services
- member newsletter
- web access to replace certificates
- yearly transcripts
- special benefits throughout the year exclusive to members

Joining **MTMI** with this registration qualifies you for the member discount. Indicate your interest in membership on the registration form or call **MTMI**. Annual membership dues for technologists are \$42.50, physicists \$59. and physicians \$79.

Register early and SAVE!

Dosimetry Course Registration Form

Please Print Clearly - This is how your name will appear on your certificate.

Name: _____ degree/title _____

Home Address _____ City _____

State: _____ Zip code: _____ e-mail _____

Day phone () _____ Eve. phone () _____ FAX () _____

e-mail address used only for notification of future programs

Registration Fees for Dosimetry courses	Early price (more than 21 days early)	Regular price (within 21 days)
I - Introductory (*2-prerequisite webinars)	<input type="checkbox"/> \$1295 <input type="checkbox"/> \$1270 _(member)	<input type="checkbox"/> \$1395 <input type="checkbox"/> \$1370 _(member)
II - Treatment Planning (*1-prerequisite webinar)	<input type="checkbox"/> \$1695 <input type="checkbox"/> \$1670 _(member)	<input type="checkbox"/> \$1795 <input type="checkbox"/> \$1770 _(member)
Dosimetry I & II package	<input type="checkbox"/> \$2795 <input type="checkbox"/> \$2770 _(member)	<input type="checkbox"/> \$2995 <input type="checkbox"/> \$2970 _(member)
Membership discount applies immediately	<input type="checkbox"/> \$42.50 - therapists, technologists, dosimetrists <input type="checkbox"/> \$59 - physicists <input type="checkbox"/> \$79 - physicians	

Date & name of course attending:

total \$ _____

Call 800-765-6864 2 weeks before the seminar if you have special needs.



* Dates of pre-requisite webinars are held prior to courses - exact dates in your confirmation letter or contact Claudette at 800-765-6864.

Credit Card Number _____ Master Card Visa

Expiration Date: _____ Signature _____

Return to: **MTMI** ♦ 20900 Swenson Dr., Suite 650 ♦ Waukesha, WI 53186
800-765-MTMI(6864) or 262-717-9797 or fax 262-717-9171 or e-mail custservice@mtmi.net

Your satisfaction with **MTMI** programs is guaranteed, a guarantee we are confident you won't need to use.

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