

Workshop #1 - March 17, 2016

Hands-on Workshop^{for} Surveying Digital Mammography Units

Workshop #2 - March 18-19, 2016

Hands-on Digital Breast Tomosynthesis Training Workshop



Take One
or take them
Both!

Faculty:

Jerry Thomas, MS, DABR, CHP, DABSNM

James O'Brien Jr., M.M.Sc

**MTMI Education Center
Milwaukee(Menomonee Falls), WI**

MTMI

**Medical Technology
Management Institute**

A continuing education division of
HERZING UNIVERSITY

About these Workshops

#1- Digital Mammography

Full Field digital mammography (FFDM) has improved image quality and reduced radiation dose in the detection of breast cancer. Mammography Quality Standards Act (MQSA) require 8 hours of training on new modalities prior to independent use of the modality. This workshop provides hands-on training for FFDM surveys and quality control procedures for four different manufacturers.



Who Should Attend #1

This workshop is directed towards medical physicists wanting to learn survey and quality control procedures on FFDM units. The course will provide the 8 hours of initial modality training required by the FDA. Medical physics students, residents and fellows, biomedical engineers, state and federal mammography facility inspectors and others will also benefit from this course.

Workshop Format #1

The FFDM workshop consists of lecture and laboratory sessions. Lectures will review FFDM technology survey and QC procedures. Attendees will be divided into small groups which rotate through each of 4 labs. FFDM Machines and workstations from Hologic, GE, Siemens and Fuji will be used to demonstrate the set-up, collection and analysis of surveying and QC data. A syllabus with supporting material for the lectures and labs will be provided to all attendees and will be downloadable. Additionally test software, test images and QC manuals from each system will be available.

Workshop Credit #1

An application for 9.25 hours of CAMPEP credit has been filed.

#2 - Breast Tomosynthesis

Digital breast tomosynthesis (DBT) provides planar images of the breast which eliminates superimposition of over and under lying tissue. Thus, false positives are reduced and diagnostic accuracy improved. FDA considers each DBT system as a separate new mammographic modality. The personnel training requirements for a new modality applies to each DBT system. This workshop will elucidate the unique features and QC testing of Hologic Selenia Dimensions, GE SenoClaire and Siemens Mammomat Inspiration tomosynthesis units. Didactic and hands-on training is provided and includes the DBT elements common to each system and the unique features of each DBT system. Hologic, GE and Siemens DBT units capable of live exposures will be used in the training.

Who Should Attend #2

This didactic and hands on training is designed for medical physicists who need to meet the initial DBT training requirements for independent use of each approved DBT system. Others who would benefit from this training include medical physics graduate students, residents, physics assistants, state and federal mammography inspectors, quality control administrators and others.

Workshop Format #2

This DBT workshop consists of lecture and hands on laboratory training with functioning DBT systems. Lectures will review the technology, survey and quality control procedures of each FDA approved system. Attendees will be divided into small groups which will rotate through all 3 labs. DBT machines and work stations from Hologic GE, and Siemens will be used to demonstrate the set-up, collection and analysis of survey and quality control data. A syllabus with supporting material for the lectures and labs will be provided to all attendees and will be downloadable with lectures and QC manuals. This workshop provides the required 8 hours of initial training in DBT required by MQSA and training in the unique features of the Hologic, GE and Siemens Tomosynthesis units.

Workshop Credit #2

An application for 13.0 hours of CAMPEP credit has been filed.



~ AAPM endorses the educational component of this program. ~

It does not however, endorse any product used or referred to in the program.

Workshop #1 - Digital Mammography - March 17

7:00 am	Registration and Coffee
7:30 am	Review of Digital Detectors in Mammography • Overview of detector technologies used in digital mammography - detector design - expected resolution • Future applications of digital mammography
8:45 am	Quality Assurance Measurements • Detector measurements: direct, indirect and CR - flat field - AEC - SNR/CNR - field uniformity - MTF
9:45 am	Workstation Performance/QC
10:15 am	Informal Discussion and Break
10:30 am	Lab Session 1
12:00 pm	Lunch (provided)
12:30 pm	Lab Session 2
2:00 pm	Informal Discussion and Break
2:15 pm	Lab Session 3
3:45 pm	Lab Session 4
5:15 pm	Questions and Answers
5:45 pm	Adjourn



Faculty

Jerry Thomas, MS, DABR, CHP, DABSNM

James O'Brien Jr., M.M.Sc

Educational Objectives

By participating in this workshop, attendees will:

- Review the technologies used for full field digital mammography.
- Collect FFDM survey data
- Learn QA procedures approved for Hologic, GE, Siemens and Fuji FFDM units.
- Analyze QC data for Hologic, GE, Siemens and Fuji FFDM units.
- Understand appropriate QC for soft copy displays.

Workshop Labs

Lab A - Survey/QC Procedures - GE Essential FFDM Unit

Lab B - Survey/QC Procedures - Hologic Selenia Dimensions FFDM Unit

Lab C - Survey/QC Procedures - Siemens Inspiration FFDM Unit

Lab D - Survey/QC Procedures - Fuji Aspire Cristalle FFDM Unit (workstation only)

Workshop #2 - Digital Breast Tomosynthesis - March 18-19

Day One - Friday

7:00 am

Registration and Coffee

7:30 am

DBT System Design and Performance Characteristics for Approved and Non-approved Tomosynthesis Units

- Principles of DBT
- DBT design choices
- Design of DBT Units
 - Hologic Selenia Dimensions
 - GE SenoClaire
 - Siemens Mammomat Inspiration
- Technical comparison of DBT and FFDM

9:00 am

Clinical Basis for DBT Imaging

- Clinical role of the medical physicist in DBT
- Indications for use
- Clinical case review-comparing DBT to FFDM

10:00 am

Informal Discussion and Break

10:15 am

Quality Control Measurements and Operations of Approved DBT Systems

- Hologic Selenia Dimensions
- GE SenoClaire
- Siemens Mammomat Inspiration

12:00 pm

Lunch (provided)

12:30 pm

Lab Session 1

3:00 pm

Informal Discussion and Break

3:15 pm

Lab Session 2

5:45 pm

Adjourn for the Day

Day Two - Saturday

8:00 am

Overview and Questions

8:30 am

Lab Session 3

11:00 am

Wrap-up and Questions

11:45 am

Adjourn



Educational Objectives

By participating in this workshop, attendees will

- Understand the techniques for collecting tomosynthesis performance data.
- Appreciate the unit and detector performance requirements.
- Understand the clinical advantages of DBT.
- Understand the role of DBT in screening and diagnostic applications.
- Understand the factors affecting in plane and depth resolution of DBT.
- Meet MQSA requirements for Hologic, GE and Siemens DBT units.
- Understand the data reporting and interpretation of QC tests.

Hands-on Sessions

Lab A - Hands-on Data Collection Procedures for GE SenoClaire

Lab B - Hands-on Data Collection Procedures for Hologic Selenia Dimensions

Lab C - Hands-on Data Collection Procedures for Siemens Mammomat Inspiration

Cancellation Policy

- Refunds, minus a \$50 processing fee, will be granted for cancellations received prior to 10 days before the program.
- Cancellations received within 10 days of the program will receive a credit toward a future MTMI seminar, minus the \$50 processing fee.
- No refunds will be made after the program.
- 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 tuition fee paid.

Acknowledgements

Appreciation is expressed to the following companies for their support and participation:



SIEMENS



FUJIFILM GE Healthcare

Meeting Location and Accommodations

Course held at
the MTMI
Education Center
in Herzing University
W140 N8917 Lilly Road
Menomonee Falls, WI
53051

Four Points by Sheraton Milwaukee North Shore
8900 North Kildeer Court
Brown Deer, WI 53209
Reservations: 800-368-7764

Ask for the MTMI Group Rate
Rate: \$109.00 per night + Tax Single or Double

Make Reservations
no later than 2 weeks before the Course
~ see website for additional details ~

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: _____

* registration confirmation will be sent to this e-mail address -PRINT CLEARLY

Day phone: () _____ Eve. phone: () _____

Workshop #1 - March 17, 2016 - Milwaukee Digital Mammography	Workshop #2 - March 18-19, 2016 - Milwaukee Digital Breast Tomosynthesis
☐ \$595 (\$565 member fee)	☐ \$995 (\$960 member fee)
Attend one or both workshops - check appropriate boxes	
Membership (discount effective immediately)	☐ \$65 physicist ☐ \$39 technologist



MTMI is committed to support anyone with special needs. Call 800-765-6864 for assistance.

MTMI

Medical Technology
Management Institute

Total:

\$ _____

Credit Card # _____

☐ MasterCard ☐ Visa ☐ AMEX ☐ Discover ☐ Check

expiration date: _____ 3 digit code: _____

Return to: MTMI ~ W140 N8917 Lilly Road ~ Menomonee Falls, WI 53051

800-765-MTMI(6864) or 262-717-9797 for FAX 414-238-2740

or email custservice@mtmi.net or register online at www.mtmi.net