Hands-on CDE course

Cone Beam Computed Tomography: Image Navigation and Manipulation

Columbia University Medical Center

New York City

Session 1 – 3 CE

Basic Concepts – 1 hour

Basic CBCT Physics
The most basic concepts of how CBCT images are captured, formatted and stored
File transfer: DICOM vs Viewers

Software technology
An understanding of the technological tools needed to interrogate scans
Native, third party and open access software programs

Medico-legal considerations
Responsibilities inherent to CBCT scanning, imaging protocol
HIPAA-compliant file transfer

Radiation dose comparison
How does CBCT scans compare to other modalities of radiographic examination

Common Techniques – 2 hours

Software modules and their basic operation
Section, Volume Render, Arch Section, Implant, Restoration, TMJ, Super Pano

General Navigation
Anatomical landmarks
Image orientation
Multi Planar Reconstruction (MPR): principles and image manipulation in MPR
Measurements
Linear, curvilinear, angular, airway, bone density
2D image capture

Session 2 – 3 CE

Advanced Techniques – 3 hours

Nerve mapping
Virtual Placement
Implant, Restoration and Abutment, Maxillary Sinus Augmentation

Mandibular canal evaluation
3D video capture

Exercises on anonymized patient scans
Implant site measurement, single implant placement & restoration
Course Description
The Division of Maxillofacial Radiology of the College of Dental Medicine presents a hands-on Continuing Education course on Cone Beam Computed Tomography Image Navigation and Manipulation, based on the use of CBCT scans for implant therapy treatment planning as well as mandibular canal and maxillary sinus evaluation.

Delivered in two three-hour sessions, this course is structured as 1 hour of abstract concepts of CBCT technology and 5 hours of hands-on training, for a total of 6 CE hours.

**Each session is limited to 5 attendees.**
(Minimum of 4 attendees per session – if interested, register early to avoid course cancellation due to low enrollment.)

General and advanced image manipulation techniques will be demonstrated by Dr. Cleber Silva while attendees perform the same tasks on individual dual-monitor computer stations.

Location: Columbia University Medical Center Maxillofacial Radiology Interpretation Room at 630 West 168th Street, New York, NY 10032

Potential Dates:  
**Session I:** - Sat., April 9, 2016  8:45AM – 11:45PM  
Mon. or Tues. eves. (tba)  5:15-8:15PM  
**Session II:** - Sat., April 9, 2016  12:30PM – 3:30 PM  
Thurs. eves. (tba)  5:15PM – 8:15 PM

Fee:  
Session I: US $385; Sessions I and II: $710

About the Instructor
Cleber Silva, DDS, FICOI, Assistant Professor of Dental Medicine at Columbia University and Affiliate Assistant Professor of Oral Medicine at the University of Washington – Seattle, is a graduate of the School of Dental & Oral Surgery (now College of Dental Medicine) of Columbia University Class of 1998 and a Board-eligible Maxillofacial Radiologist.

After attending a General Practice Residency at The New York Hospital of Cornell University in 1998-1999, Dr. Silva practiced General Dentistry for 13 years. He returned to Columbia University as a faculty member in 2009 and in 2015 completed a Maxillofacial Radiology Residency program at the University of Washington – Seattle.

He currently teaches full-time in the Division of Maxillofacial Radiology and is in private practice of Maxillofacial Radiology.

**NOTE:** The Division of Maxillofacial Radiology of the College of Dental Medicine is **now offering an interpretation service** for CBCT scans and dental radiographs with customized reports for implant placement, nerve mapping, wisdom teeth extraction, pathological findings and orthodontic treatment planning. For information on how to submit your scans or radiographs for an interpretative report, please contact Dr. Cleber Silva at cp22@cumc.columbia.edu.

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