



BASIC

ULTRAMICROTOMY

MINI-COURSE

July 18th to 19th, 2016

University of Maryland, Baltimore



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2016 UMB Basic Ultramicrotomy Mini-course Agenda (Tentative)

07/18/2016	
9:00 to 9:50	<ol style="list-style-type: none"> The anatomy of ultramicrotomes. <ul style="list-style-type: none"> Types of sectioning instrument (thick, semithick and ultrathin sections) vibrotome, cryostat and rotary microtome for paraffin blocks and ultramicrotome Mechanism of ultramicrotomes Functionality of ultramicrotomes and accessories
10:00 to 10:45	<ol style="list-style-type: none"> All about Knives <ul style="list-style-type: none"> Types of diamond knives The usage and care of diamond knives Glass knives, pros and cons. How to prepare and use of glass knives
11:00 to 12:00	<ol style="list-style-type: none"> Ultramicrotomy of biological specimen: workflow & general practice <ul style="list-style-type: none"> Shaping sample pyramid and trapezoid block face Smoothing block face Pre-sectioning, semi-thick sectioning Ultrathin sectioning Section pick-up
Lunch Break	
1:00 to 5:00	<p>Demonstration: Manual trimming and ultramicrotome trimming</p> <p>Demonstration: Making glass knives, eyelash tools and cleaning diamond knives</p> <p>Hands-on Practice</p>
07/19/2016	
9:00 to 10:00	<ol style="list-style-type: none"> Ultrathin sectioning clinics <ul style="list-style-type: none"> Common problem troubleshoot Special sectioning: Sectioning flat specimen (monolayers, filters etc) Tricks to locate diluted specimen in blocks Tricks to section poorly embedded specimen (soft blocks) Directional sectioning Serial sections
10:00 to 10:30	<ol style="list-style-type: none"> Q&A
11:00 to 12:00	Hands-on Practice
Lunch Break	
1:00-5:00	Hands-on Practice

EMCIF also organizes annual current EM techniques workshop in the last week of May and cryo-ultramicrotomy minicourse in October. Please visit <http://www.dental.umaryland.edu/core-imaging/workshops-and-courses/> for more information about EMCIF workshop and courses.