## **Equipment Training Sheet -** <u>Nikon Optiphot Planar Microscope</u>

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Name:		Position:			
Depart	ment:	Phone:			
e-mail:		Director:			
Staff Initials	Trainee Initials				
		<ul> <li>Anyone needing access to MSE equipment needs to contact MSE tech staff:         <ul> <li>For initial training</li> <li>For subsequent usage (will receive equipment card)</li> <li>No secondary training of the equipment</li> </ul> </li> <li>Review of hazards, controls, personal protective equipment:         <ul> <li>Gloves may be worn to minimize oils from hands contaminating chamber and samples</li> <li>Any PPE and precautions should be followed for the specimens</li> <li>Bring the MSDS for the material to be studied if hazardous</li> <li>Small risk of pinching due to moving components</li> </ul> </li> </ul>			
		<ul> <li>Review of standard operating procedure:         <ul> <li>http://www.mse.engin.umich.edu/internal/procedures/nikon-optiphot</li> </ul> </li> <li>Make sure stage is at appropriate height</li> <li>Start at lowest magnification to get sample in focus then progressively high magnification</li> <li>Two light sources: reflective and transmission</li> <li>Three main imaging types: brightfield, darkfield and polar\nomarski</li> <li>There are several filters to be aware of: GIF (for B\W), diffusers and ND filters</li> <li>Make sure the field and aperture diaphragms are appropriately set</li> <li>Gently rotate eyepiece clockwise to transmit light to capturing device</li> <li>Magnification of 5x, 10x, 40x and 100x (plus approximately 10x multiplier)</li> </ul>			
		<ul> <li>Available supplies to help in the procedure:</li> <li>Tweezers and spatulas</li> <li>Gloves</li> <li>Optical lenses: 5x, 10x, 40x and 100x (upon request)</li> <li>Aluminum and glass (upon request) slides</li> <li>Clay and sample press</li> </ul>			

Staff Signature/date:				
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Trainee Signature/date:				