

Detect More Evidence: Extend Your Search Beyond the Visible

Various types of evidence are often overlooked at a crime scene because they are not visible to the naked eye. When using an alternate light source with the proper corresponding filter, it is still possible to miss items of evidence due to background interference or improper angle of illumination. The purpose of this class will be to introduce attendees to various methods utilized in detecting evidence beyond the visible range. An introduction to light theory and techniques utilizing wavelengths of light beyond the visible range on notoriously difficult surfaces will be discussed. This will include ultra-violet and infrared examination to detect the presence of biological fluids, gunshot residue, and fingerprints on difficult backgrounds. Novel oblique lighting techniques will be explored to detect evidence on raised surfaces and footwear impressions. Bandpass filtering techniques will also be explored to aid in the detection of evidence at crime scenes. Attendees will be introduced to non-visible lighting techniques and digital capture of fingerprints developed using various treatment methods including cyanoacrylate fuming and IR fluorescent fingerprint powders.