

# Intro to Hi-Tech Crime Investigations

*Provides Law Enforcement, Crime Analysts, & Prosecutors a foundational understanding of investigative techniques used in Hi-Tech and digital crime cases. The course introduces legal processes, digital forensics, cellular record analysis, tower dumps, vehicle forensics, internet investigations, and child exploitation investigations.*

**September 10-11, 2026**

***Mokena, IL Police Department  
10300 191st St., Mokena, IL 60448***



**\$450.00**

**www.hi-techinvestigations.com**





Hi-Tech Investigations, LLC  
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## Intro to Hi-Tech Crime Investigations (2 days)

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This course provides Police Officers & Investigators, Crime Analysts, Digital Forensic Examiners, and Prosecutors with a foundational understanding of investigative techniques used in hi-tech and digital crime cases. Students will learn legal authorities used to obtain digital evidence including grand jury subpoenas, search warrants, and exigent circumstance requests. The course introduces digital forensics, cellular record analysis, tower dumps, vehicle forensics, internet investigations, and child exploitation investigations. **Students will need a laptop or windows tablet (NO IPAD) with internet capability.**

### Day 1 Schedule

- Introduction to High-Tech Crime Investigations
- Legal Process: Grand Jury Subpoenas, Search Warrants, Preservation Letters, Exigent Circumstances
- Service Provider Records and Investigative Returns
- Call Detail Records (CDR) Overview
- Cell Tower Fundamentals and Sector Analysis
- Mapping Historical Cell Site Data
- Digital Forensics Fundamentals
- Evidence Handling and Forensic Imaging

### Day 2 Schedule

- Child Exploitation Investigations Overview
- Online Platforms and Peer-to-Peer Networks
- IP Address Attribution and Subscriber Records
- Digital Evidence in Child Exploitation Cases
- Vehicle Infotainment and Telematics Forensics (BERLA)
- Timeline Reconstruction and Investigative Correlation
- Case Study Exercise
- Courtroom Preparation and Reporting

### Upon Completion:

Upon completion of this course, students will be able to:

- Identify common sources of digital evidence in criminal investigations
- Understand the legal process required to obtain electronic records
- Interpret basic cellular and call detail record data
- Recognize digital forensic artifacts from computers and mobile devices
- Understand the evidentiary value of vehicle infotainment and telematics data
- Integrate multiple digital evidence sources into investigative timelines



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### **Instructor Biography:**

Doug Kein is a Sergeant with the Orland Park, Illinois Police Department. A highly experienced and certified Digital Forensics Investigator with over 25 years of experience in law enforcement, specializing in mobile and computer forensics, digital crime scene investigations, and evidence recovery. Proven expertise in forensic data acquisition, analysis, and expert witness testimony. Known for delivering complex forensic examinations in criminal investigations involving child exploitation, violent crimes, network intrusions, and cybercrimes. Demonstrated leadership in managing and mentoring teams, creating detailed investigation reports, and providing in-depth technical training to officers and external agencies.

Detective Commander Mark Astrella has served with the Elmwood Park Police Department for 22 years, bringing extensive experience and leadership to his role. He is a member of the WESTAF Major Crimes Unit and the Cook County State's Attorney's Internet Crimes Against Children (ICAC) Task Force. As a certified Cellebrite analyst, Detective Commander Astrella has assisted numerous outside agencies in hundreds of investigations involving internet-based crimes, including violent offenses, peer-to-peer networks, dark web activity, and the exploitation of children. He is proficient in a range of forensic tools, including OS Triage, Autopsy, BlackBag Technologies' BlackLight, and Magnet Forensics' Axiom. Detective Commander Astrella is also a 3CE Certified Cyber Crime Investigator through the National White Collar Crime Center (NW3C) and a ChildFirst certified forensic interviewer, applying a victim-centered and trauma-informed approach to child interviews.