Welcome to the **Oxygen Forensic® Drone Analysis** training course!

This one-day instructor-led training event is geared toward students looking to gain insight into the world of Unmanned Aerial Vehicle (UAV) forensics. Using Oxygen Forensic© Detective, attendees will learn best practices for data extraction from UAVs, UAV mobile device applications and associated cloud account data. Students will examine these data collections to build a forensic report detailing all activity of a UAV flight including analysis of associated images and movies on SD-cards as well as flight-control black box data.

Oxygen Forensic® Detective is the flagship technology of Oxygen Forensics and a world-class suite of tools that allow an investigator to ingest mobile device data from all industry standard extraction formats into a database architecture for single device analysis or multi-device analytics. The recent implementation of the x64 architecture of JetEngine elevates Oxygen Forensic® Detective to an unparalleled level of optimization, efficiency and analysis.

Students will use Oxygen Forensic® Detective to correlate data to include:

- Identifying aircraft details
- Flight log data
- Images and videos
- Geolocation data and plotting
- Controller-based application file structure for relevant data

Additional in-depth training available for Oxygen Forensic® Detective includes:

- Cloud Extraction (one-day, instructor-led)
- Passware Attacks (one-day, instructor-led)
- Call Detail Record Analysis (one-day, instructor-led)
- Oxygen Forensic BootCamp (three-day, instructor-led)

Course Modules

Install and Support

This module educates end-users about their customer experience with Oxygen Forensics while learning to install the latest Oxygen Forensic® Detective (OFD) products and mobile device drivers. Students will learn how to access their unique customer portal and download any software components needed.

Introduction to UAV Forensics

To effectively process drones and their respective data, a crash course in UAV concepts and available data would be in order. This module discusses sUAS characteristics, criminal use-cases for UAVs and manufacturer variables that can help differentiate between UAVs. Students will learn the aircraft power-on process through to how flight logs are created and updated.

Components of sUAS

This module focuses on the components and features of sUAS to include:

- Batteries
- GPS receivers
- Ground vs. air controllers

Additionally, controller options and autonomous flight details are covered:

- Wi-Fi controls
- Signal interception
- Return to home features
- Basic vs. smart vs. integrated controllers

Mobile and Tablet Devices

This module inspects the bespoke | custom flight controller concept to include "First Person View" and integrated displays.

Drone collection techniques

The processes of extracting data from aircraft, mobile and tablet devices as well as controllers and cloud accounts are of prime importance when nurturing the elements of a drone investigation. This module demonstrates data recovery from a DJI Spark.

Data Interpretation

In this module, students use Oxygen Forensic® Detective to review collected data:

- UAV data
- Flight logs
- Cloud data
- Image and video files
- Geolocation-base data
- Ground vs. air controllers
- Local and synchronized logs
- Folder structure of Android and iOS devices

Report Writing

This module summarizes the course by presenting best practice report writing specially aligned to make sense of drone, controller and cloud-based data. The module includes a glossary of industry standard drone definitions.

Thank you for the interest in Oxygen Forensic® Detective training.

Hope to see you in class soon!