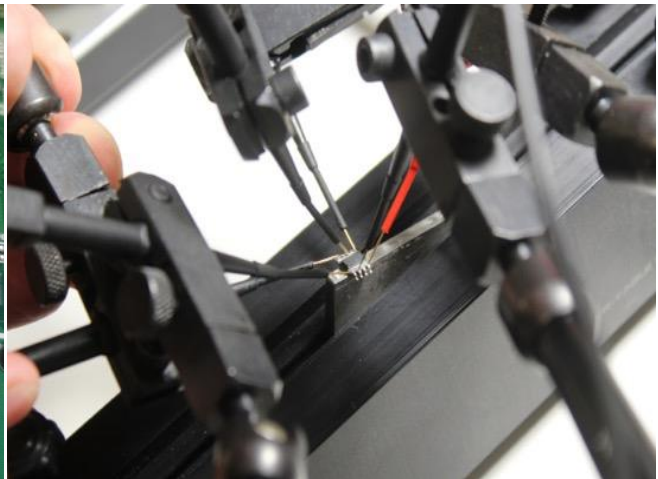




Training Course Catalog

2021



303-876-7649
www.vtolabs.com
Broomfield, Colorado USA

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TO REGISTER:

Please contact VTO via website,

email: **training@vtolabs.com**

or telephone:

+1 303-876-7649

Why VTO Training?

VTO Labs is a Colorado-based company that performs world-leading research in the areas of digital forensics and device exploitation. VTO offers the experience of multiple U.S. Department of Homeland Security contracts on digital forensics research, and subject matter expertise to multiple Federal agencies, Interpol, Europol, law enforcement agencies around the world.

Course Information

Course Location

All courses are offered at the VTO Labs training facility:

325 Interlocken Parkway
Building C
Broomfield, Colorado 80021
USA

Course Schedule

8:30 A.M. – Registration, FIRST DAY ONLY

9:00 A.M.–4:30 P.M. – Daily instruction

Any individual class timing variations will be sent upon registration.

Course Fees

Course Fees cover all applicable course materials, refreshments, and Certificate of Completion.

Registration

Registration is encouraged as early as possible. Scheduling of group classes is expected at least three months in advance.

Hotel Accommodations

Information about local hotels is available at the time of registration. From time to time, promotional rates are available. Rates are subject to change at the discretion of the hotel.

Customized Courses

VTO Labs can customize training for organizations desiring specially tailored content. Custom training will require unique terms and pricing. Inquiries are welcome.

Chip-Off for Mobile and Embedded Device Forensics

The VTO Labs Chip-Off class brings the latest advancements in chip rework and chip off techniques to practitioners in the field of digital forensics. The 5-day class teaches four methods for safely removing computer chips: heated removal, milling, lap and polish, and vapor phase. VTO Labs classes feature a strong emphasis on hands-on practice of the techniques taught in the class. Class participants leave the class with the knowledge, hands-on experience, and scientific background to effectively bring these techniques into their labs.

Length: 5 Days

Price: \$4995 USD

Class Modules

MODULE 1: INTRODUCTION

- Course Overview
- Lab Safety

MODULE 2: EMBEDDED SYSTEM

- What is an embedded system?
- Examples of embedded systems

MODULE 3: FLASH STORAGE DEVICES

- What is flash memory?
- Types of flash memory

MODULE 4: FLASH CONTROLLER

- What is a flash controller?
- Wear leveling and garbage collection

MODULE 5: NOR FLASH

- What is NOR Flash?
- Advantages and disadvantages

MODULE 6: NAND FLASH

- What is NAND Flash?
- Advantages and disadvantages

MODULE 7: PHYSICAL IMAGE OF FLASH

MEMORY CHIPS

- The structure of a physical image
- Dissection of flash memory

MODULE 8: UNDERFILL AND CONFORMAL COATINGS

- How to identify types
- Ways to deal with

MODULE 9: RESEARCH OF DEVICE

- Specification of device
- Identifying components of device

MODULE 10: SOLDER

- Types of solder
- Advantages and disadvantages of each type

MODULE 11: CHIP-OFF OVERVIEW

- History and purpose
- When to use
- Methods of chip-off
- Advantages and disadvantages

MODULE 12: THERMAL CHIP-OFF

- What it is
- Deciding when to use
- Advantages and disadvantages
- How to perform

MODULE 13: APPLICATION LAB – THERMAL CHIP-OFF

MODULE 14: MILLING CHIP-OFF

- What it is
- Deciding when to use
- Advantages and disadvantages
- How to perform

MODULE 15: APPLICATION LAB – MILLING CHIP-OFF

MODULE 16: LAP AND POLISH CHIP-OFF

- What it is
- Deciding when to use
- Advantages and disadvantages
- How to perform

MODULE 17: APPLICATION LAB – LAP AND POLISH CHIP-OFF

MODULE 18: VAPOR PHASE CHIP-OFF

- What it is
- Deciding when to use
- Advantages and disadvantages
- How to perform

MODULE 19: APPLICATION LAB – VAPOR PHASE CHIP-OFF

MODULE 20: EQUIPMENT TO READ A CHIP

- Types of equipment
- Advantages and disadvantages of each

MODULE 21: PREPARATION OF CHIP FOR READING

- Cleaning a chip
- Repairing a chip
- Reballing a chip

MODULE 22: CHIP READING

- Programmers and adapters
- How to image a chip

MODULE 23: APPLICATION LAB – CHIP PREPARATION AND ACCESSING DATA DIRECTLY FROM CHIPS

MODULE 24: IMAGE STORAGE AND SECURITY

- Sterilization of storage
- Encryption of storage

MODULE 25: VALIDATING IMAGE

- Reason for validating
- Hashing an image

TESTING: WRITTEN AND PRACTICAL TESTING

Drone Forensics

The 4-day Drone Forensics class provides an introduction to consumer and professional level drones, SUAS (small, unmanned aircraft systems), and the forensic artifacts that may be related to this class of devices. The class leads participants through basic on-scene collection of devices, identification of connected systems and data acquisitions against all the possible data storage areas. Participants leave the class with hands-on experience on device disassembly, data acquisitions against various drone platforms, and analysis of data from drone systems.

Length: 4 Days

Price: \$3995 USD

Class Modules

INTRODUCTION TO UNMANNED AIRCRAFTS

- History and Incidents
- Anatomy of Drones
- Applications
- Malicious Usage
- Investigative Questions
 - Common Vulnerabilities
 - Traditional Forensics Considerations
 - Data Locations

EVIDENCE HANDLING

- On-Scene Risks
- On-Scene Triage
- On-Scene Collection
- Safety Considerations
- RF Considerations
- Battery Considerations
- Device Collection
- Considerations for Data Acquisition at the Scene

EVIDENCE BEST PRACTICES

- Industry Best Practices
- Process Definition for Field and Laboratory
- Exemplar Devices
- Training
- Practice
- Evidence Storage and Security

DATA ACQUISITIONS

- Challenges
- Data Available from Drones
- How to Access and Use Data Acquisition Programs
 - Drone vendor tools
 - Digital forensic tools
 - Open-source methods
- Data Analysis

ASSESSMENTS

- Review of Materials – daily and end of week
- Participant Testing
- Performance-Based Assessment

Policies

Agreements

All course participants must sign a “Hold Harmless Agreement” relating to the use of equipment provided or other activities during the course. Some courses (including Drone Forensics) require a “Restricted Use Agreement” regarding the information made available in the course. The Restricted Use Agreement commits the participant to use the training solely for professional law enforcement or government agency and related purposes.

Payment

Company/Agency payment or an approved company/agency purchase order is required prior to registration confirmation. We also accept Visa, MasterCard, American Express, Diners Club, Discover and U.S. government credit cards. For credit card users, charges will be in U.S. dollars. International payments will be converted by your credit card company. VTO is not responsible for fluctuations due to exchange rates. Prepayment is required from students outside the U.S. Pricing, registration terms and conditions are subject to change without notice. **Applicable taxes will be applied to your invoice.**

Cancellation

If you are unable to attend your scheduled training class, please notify VTO right away. In order to receive a refund or a credit toward rescheduling, you must cancel or reschedule your registration 14 or more calendar days before the start date of your scheduled class. Failure to provide the required notification will result in full charge for the course. If a student does not attend a scheduled course without the required prior notification, the funds will be forfeited, and rescheduling will not be allowed. Within the required notification period, only student substitutions will be permitted.

Rescheduling is permitted at any time with 14 or more calendar days' notice. Rescheduled enrollments must be rescheduled within six months of the cancel date or funds on account will be forfeited.

Changes by VTO

VTO Labs reserves the right to change pricing, registration terms and conditions, to make changes to any of our products or programs described on this website, or to change a course location or cancel a course at any time without notice or liability. VTO's sole liability will be limited to the refunding of any fees paid in respect of the course, and VTO shall not be responsible for any incidental or consequential loss arising whatsoever. VTO will endeavor to give enrollees as much advance notice as possible of any change to their enrollment. Unless otherwise agreed in writing, any terms or conditions specified on or referenced within an ordering document shall have no force or effect, and in no event shall VTO's performance of services constitute acceptance of any such terms or conditions.