



TUTORIAL TUESDAY

SEPTEMBER 17
ORLANDO, FLORIDA

About Our Offerings

- Tutorial Fees: \$300pp for one workshop and \$500pp for two tutorials.
- Pre-Register is appreciated, walk-ins are welcome.
- Special Offer: Complete two courses and you are eligible to take the Certified T&E Professional (CTEP) exam for free (\$300-500 value).
- Tutorials qualify for Continuing Professional Education credits.
- A Certificate of Completion will be awarded upon request.
- Lunch is not included.
- **Location:** The Doubletree Hotel by Hilton at Sea World Conference Center, Orange Ballroom CD, 10100 International Drive, Orlando, FL 32821

Morning Sessions (8:00AM – 12:00)

T&E Fundamentals and CTEP Foundations (part 1)

Presented by **Chas McKee**, PELSS 3 Program Manager Global Systems Technologies Inc.

A course review on the fundamentals of Test & Evaluation focused on the 4 CTEP domains to better prepare for the International Test and Evaluation Association (ITEA) Certified Test & Evaluation Professional (CTEP) exam.

Abstract In this high-level full day course we will review the fundamentals of T&E which are covered in the CTEP Foundational exam. The course includes an introduction with a short history of T&E in the Federal Government and an overview of the DoD Acquisition Process (with a few references to DHS and FAA acquisition processes). The class then focuses on the CTEP Body of Knowledge (BOK) including the four subject domains plus some specialized types of testing:

1. Test and Evaluation Planning: Requirements analysis, T&E strategy, the TEMP, evaluation approach, test planning, T&E cost management, contracting for T&E, organizational planning, risk identification and management
2. Test and Evaluation Design: Test adequacy and Scientific Test and Analysis Techniques (STAT)

Who Should Attend

Individuals in the T&E community (government and industry, ITEA members and non-members) who want to demonstrate their knowledge, skills and abilities in T&E and be

recognized by ITEA for their professional growth. Note that the Certified Test & Evaluation Professional (CTEP) credential is becoming a “preferred” requirement in many test engineer job postings.

Introduction to the State of the Art in Finding Bugs

Presented by **Dr. Mike Shields, Dan Koch, and Travis Yoder**, Vigilant Cyber Systems

The current state-of-the-art for finding bugs in software includes static analysis, dynamic analysis, and formal methods. This tutorial will introduce the audience to these techniques and the strengths and weakness of each. After this introduction, we will demonstrate current open-source static analysis tools as exemplars of that process. Then, we will introduce the TRMC funded Vader Modular Fuzzer, as an exemplar of Fuzzers. Participants will be provided docker containers with the tools and exemplar software so that they can run the tools themselves. The goal of this tutorial is for the participants to understand the process for using these tools and their strengths and weaknesses vice making the participant proficient in using the tool.

Test and Evaluation of AI-Enabled Systems

Presented by **Jean Petty**, Department of Homeland Security, Virginia Tech

The growth of Artificial Intelligence (AI) and Machine Learning (ML) enabled systems has presented unique challenges to the Test and Evaluation community. This course provides an introduction to AI/ML, discusses important issues for AI/ML including bias and trust, and defines the unique challenges for Test and Evaluation.

Afternoon Sessions 1:00 PM - 4:00 PM

T&E Fundamentals and CTEP Foundations (part 2)

Presented by **Chas McKee**, PELSS 3 Program Manager, Global Systems Technologies Inc.

Abstract - see above

1. Test and Evaluation Execution: Test Control Management, Data Management, and Test Safety / Certification
2. Test Data Analysis, Evaluation and Reporting: Data Verification and Validation, Validation of Test Results, Evaluation, Reporting, Cyber Resilience / Cybersecurity Analysis, Model Validation, and Data Analytics.
3. Specialized types of Testing: Integrated Test & Evaluation (IT&E), Human Factors Engineering in T&E, Modeling & Simulation (M&S) in T&E, Reliability Growth, Software Development (including Agile) in T&E, Artificial Intelligence in T&E, Cyber Security T&E, Live Fire T&E, and Interoperability T&E.

Cyber Offense Basic Training - A Boot Camp Approach to Understanding Adversarial Attacks against DoD Networks and Weapon Systems

Presented by **Roy Wilson**, CISSP, CEH, Sec+, Cybersecurity Professor, Defense Acquisition University

Abstract DAU will present a short introduction to cyber training ranges for networks and weapon systems. DAU will then conduct a hands-on tutorial on Tactics, Techniques and Procedures used by an adversary to conduct cyber operations against a network system and against an unmanned aerial system (UAS). 15 individuals may sign up to participate in the offensive cyber operations with the rest of the audience observing. The following applies to the 15 hands-on participants and not to the observers: Preregistration in the DAU Cyber Training Range is required to participate in the offensive operations. Range participants will sign up in the morning for the afternoon session on a first come, first served basis. Participants will use their own personal or work computer with internet connectivity and they must have a Gmail account. The Gmail account and password are used for authentication into the DAU cyber range. Objectives for the tutorial are to exploit a networked computer system using the “Eternal Blue” exploit and then to conduct a Distributed Denial Of Service (DDOS) attack against a UAS command and control link. No “hacking” experience is necessary for the 15 individuals participating in the offensive cyber operations.

Cybersecurity Technical Program Workshop

Wednesday and Thursday, September 18 – 19 2024

Seats are still available if you are interested in attending the full technical workshop with an opportunity to sign up for the post-workshop tour of the **National Cyber Range Complex (NCRC)** on Friday, Sept 20. [Fast Approaching Deadlines](#) can be found on the ITEA website.