



National EVT Training Academy

MAY 13-17, 2019

Advanced Technology Center
1770 Technology Boulevard Daytona Beach, FL 32117

IMPORTANT INFORMATION: Due to copyright laws, all suggested reference material will be the responsibility of the student and is listed under the class description. Some classroom manuals will be posted on-line. Handouts will be limited.

MONDAY-THURSDAY | MAY 13-16 | STEVE DEAN, HALE PRODUCTS, INC.

HALE PUMP TRAINING CLASS

This is a real-world, hands on training class. The class covers the care, operation and maintenance of Hale mid-ship pumps. Pump accessories will also be covered. Day 1 is a classroom setting. Days 2 and 3 are hands on. We will be working with a real fire truck. Students will remove the pump, diagnose the problem, rebuild the pump and re-install on the truck. Day 4 will cover the pump test. We will hook up to a test pit and run through the pump certification procedure. Students will be required to wear steel toed shoes/boots and safety glasses on days 2 and 3. Handbooks will be given to each student.

MONDAY-WEDNESDAY | MAY 13-15 | EVTCC REVIEW | MICHAEL YOUNG, CITY OF ALEXANDRIA FIRE

M-1 & M-2 MANAGEMENT - LEVEL I & LEVEL II - SHOP MANAGEMENT - 24 HOURS

Course will review materials needed for supervisor level in a shop setting. It will cover management principles as stated in The Career Equipment Fleet Manager, as well as cover the requirements of Fire Apparatus as stated by NFPA.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.

[CLICK HERE FOR REQUIRED M-1 REFERENCE MATERIALS](#)

[CLICK HERE FOR REQUIRED M-2 REFERENCE MATERIALS](#)

MONDAY-TUESDAY | MAY 13-14 | EVTCC REVIEW – DARRYL BEATRICE, E-ONE

F-5 AERIAL FIRE APPARATUS

This course of study will prepare the technician to take the EVT F-5 exam or the RF5 Recertification Exam. Course objectives are to define the terms and phrases commonly used with aerial fire apparatus, operations and/or testing; identify the design requirements for aerial fire apparatus stated in NFPA 1901; understand the testing, inspection, and documentation requirements of all aerial fire apparatus as stated in NFPA 1901 and 1911; understand and identify hydraulic systems of an aerial apparatus; understand and identify electrical systems of an aerial apparatus; describe activities considered to be accepted practices in service and repair of aerial apparatus; and understand the principles of operating aerial apparatus

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.

[CLICK HERE FOR REQUIRED F-5 REFERENCE MATERIALS](#)

MONDAY-TUESDAY | MAY 13-14 | EVTCC REVIEW | JOHN FICKERS, HALL-MARK RTC

F-1 INSPECTION, MAINTENANCE & TESTING OF FIRE APPARATUS

Course will review the definition of terms, general legal requirements, the out of service criteria, along with the inspection, diagnostic checks and maintenance, with road test and performance testing of fire and emergency apparatus and ambulances and of ambulances.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.

[CLICK HERE FOR REQUIRED F-1 REFERENCE MATERIALS](#)

MONDAY | MAY 13 | EVTCC REVIEW | KENNY STEVENS, E.V.T.S., INC.

E-0 – INSPECTION/MAINTENANCE OF AMBULANCES

Course will review the definition of terms, general legal requirements, the out of service criteria, along with the inspection, diagnostic checks and maintenance, with road test and performance testing of ambulances.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.

[CLICK HERE FOR REQUIRED E-0 REFERENCE MATERIALS](#)



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MONDAY | MAY 13 | EVTCC REVIEW | KENNY STEVENS, E.V.T.S., INC.

F-4A ADVANCED ELECTRICAL SYSTEMS

Class will teach the technician to understand the concepts, terms, and phrases related to: 1) A/C Line Voltage 2) System Knowledge 3) Sources 4) Accessories 5) Low Voltage Systems 6) Multiplex Systems 7) Operations.
IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED F-4A REFERENCE MATERIALS](#)

MONDAY | MAY 13 | EVTCC REVIEW |

E-4 AMBULANCE CAB, CHASSIS AND BODY

The technician will understand the definition or terms commonly used when dealing with ambulances, the general requirements related to ambulances, safety/FMVSS/OSHA, and maintenance and troubleshooting. It will go over the systems for systems that are unique to ambulances as well as common chassis components.
IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED E-4 REFERENCE MATERIALS](#)

TUESDAY-WEDNESDAY | MAY 14-15 | EVTCC REVIEW | LANCE KOCHEN, REEDY CREEK FIRE RESCUE

F-3 FIRE PUMPS & ACCESSORIES

Class prepares the technician to understand the general design, performance and testing standards for pumper apparatus, per NFPA 1901 and 1911. The technician will understand the hydraulic principles of water movement in pumping operations, learn the terms that relate to the basic hydraulic principles used in the fire service, understand the mechanical principles of pumps, pump controls and accessories, the operation of a fire pump and related accessories during pumping operations, understand the periodic preventive maintenance required for fire pumps, pump controls and pump accessories, understand the procedures necessary to overhaul a fire pump and the procedures of performing a pump service test.
IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED F-3 REFERENCE MATERIALS](#)

TUESDAY-WEDNESDAY | MAY 14-15 | EVTCC REVIEW | DAVID RAINVILLE, FL DETROIT DIESEL ALLISON

F-6 ALLISON AUTOMATIC TRANSMISSIONS

The class will provide the technician with the basic operating principles of Allison On-Highway transmissions as found in emergency vehicles, preventive maintenance support of the Allison Transmission as found in emergency vehicles, basic troubleshooting procedures, identify problems that can be corrected in chassis, seeking outside assistance, basic understanding of Allison electronic controls, an understanding of Allison Transmissions output retarders and Allison Transmission reference material.
IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED F-6 REFERENCE MATERIALS](#)

TUESDAY | MAY 14 | EVTCC REVIEW

E-3 AMBULANCE, HEATING, AIR CONDITIONING AND VENTILATION SYSTEMS

Class covers the basic design, requirements and components of heating, a/c and ventilation systems. The technician will understand the definition or terms commonly used when dealing with ambulances, specifications and design of systems, heating and air conditioning theory, operations systems components and controls, troubleshooting, repair and service and safety and environmental concerns.
IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED E-3 REFERENCE MATERIALS](#)

WEDNESDAY-THURSDAY | MAY 15-16 | EVTCC REVIEW | JOHN FICKERS, HALL-MARK RTC

F-2 DESIGN & PERFORMANCE STANDARDS PREVENTIVE MAINTENANCE OF FIRE APPARATUS

Class prepares the technician to understand the design and performance standards for fire apparatus per NFPA 1901 Standards for Automotive Fire Apparatus, and the general principles of preventive maintenance and servicing. The technician will learn the terms and phrases commonly used in connection with the fire apparatus, apparatus operations and/or testing of apparatus.
IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED F-2 REFERENCE MATERIALS](#)



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WEDNESDAY-THURSDAY | MAY 15-16 | EVTCC REVIEW |

F-4 APPARATUS ELECTRICAL SYSTEMS AND E-2 AMBULANCE ELECTRICAL SYSTEMS

F-4: Class on basic electricity including electrical theory, battery theory, wire and cables, alternators and cranking motors, advanced electricity, the application of the above theories plus troubleshooting of entire systems. The class covers the basic design and performance requirements of the fire electrical systems, components of electrical systems and preventive maintenance and troubleshooting activities.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED F-4 REFERENCE MATERIALS](#)

E-2: Class on basic electricity including electrical theory, battery theory, wire and cables, alternators and cranking motors, advanced electricity, the application of the above theories plus troubleshooting of entire systems. The class covers the basic design and performance requirements of the ambulance electrical systems, components of electrical systems and preventive maintenance and troubleshooting activities. The technician will understand the use of diagnostic equipment, batteries, the construction and operation of starting systems, charging systems and components, and the accepted practices used to diagnose and repair electrical systems.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED E-2 REFERENCE MATERIALS](#)

WEDNESDAY - THURSDAY | MAY 15-16 | EVTCC REVIEW

F-8 FIRE APPARATUS HYDRAULICS SYSTEM

Course covers hydraulic theory, use and maintenance for hydraulic fluids, understanding hydraulic systems components and their functions, identify hydraulic circuits and troubleshooting.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.
[CLICK HERE FOR REQUIRED F-8 REFERENCE MATERIALS](#)

WEDNESDAY - THURSDAY | MAY 15 – 16 | JOHN CAMPO, POWER BRAKE, LLC

SAFEBRAKE INSPECTION, MAINTENANCE, TROUBLESHOOTING, COMPLIANCE VALIDATION

Weds – Hands On

This is a practical session in a fire department garage, demonstrating the practical applications and performance impact of the concepts from the foundation brake class. Special attention is paid to the *preventive* component of maintenance, identifying problems before they become failures or potential safety hazards.

A Vericom computer will be used to test the stopping performance of a vehicle during a test drive.

- Brake inspection procedures and conditions to look for
- Introduction to the Vericom and basic instruction on its use
- Brake adjustment concepts and the relationship of brake torque and stopping distance to pushrod travel in drum brakes
- Explanation of brake efficiency and its relationship to gross vehicle weight, deceleration, g-force and stopping distance
- Using the Vericom computer in a road test to ensure NFPA-1911 compliance
- Open discussion about best practices including questions and answers

Thurs - Hands-On (Classroom Session)

Follow-up to prior day shop session of inspection and performance testing. Vericom data will be downloaded to computer to generate various performance reports. These reports will be reviewed and analyzed to understand, in detail, the stopping performance tests. Cold and hot stop brake tests will be compared to each other as well as reports gathered from other agencies



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WEDNESDAY | MAY 15 | EVTCC REVIEW | CHRIS BEVILLE, REV RTC HALL-MARK

E-1 DESIGN & PERFORMANCE STANDARDS OF AMBULANCES

Course covers the general design and performance standards for ambulances NFPA 1917 and general principles of preventive maintenance and servicing. The technician will understand the definition or terms commonly used when dealing with ambulances, the general requirements related to ambulances, safety/FMVSS/OSHA, and maintenance and troubleshooting. It will go over the systems for systems that are unique to ambulances as well as common chassis component.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.

[CLICK HERE FOR REQUIRED E-1 REFERENCE MATERIALS](#)

WEDNESDAY | MAY 15 | KEVIN PARSON | CUMMINS DIESEL

CUMMINS DIESEL

Brief history of emissions from 1998 through today's regulations. Also, covered will be the function of each component in the emission systems, the electronic tools that will help with diagnosis, insight, generic fault code readers, coolant system maintenance and the difference of coolant types and how to check them, maintenance of the engine, fuel and oil maintenance and class will end with open discussion of any topic.

THURSDAY | MAY 16 | EVTCC REVIEW

F-7 FOAM SYSTEMS

Class will review the principles of foam systems and operations, mechanical components, maintenance and testing of foam systems.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.

[CLICK HERE FOR REQUIRED F-7 REFERENCE MATERIALS](#)

THURSDAY | MAY 17 | EVTCC REVIEW | AJ MORGANELLI, WHELEN ENGINEERING CO.

L-1 LAW ENFORCEMENT VEHICLE INSTALLATION TECHNICIAN

Classroom course will cover all materials need to pass the L-1 test. L-1 test covers design and performance standards, installation of the specialized systems and equipment, and the accepted practices used in the service and maintenance of LE Vehicles. L-1 is for vehicles smaller than those covered by NFOA.

IMPORTANT: This exam may contain some "accepted practice" type questions not found in the reference material listed.

[CLICK HERE FOR REQUIRED L-1 REFERENCE MATERIALS](#)

THURSDAY | MAY 16

KUSSMAUL ELECTRONICS

1. Introduction to Batteries
 - a. Lecture: Battery Terminology
 - b. Hands-on: Load Testing
2. Battery Chargers: AC1000, AC1200, LPC40
 - a. Lecture: Troubleshooting & Installation
 - b. Hands-on: AC1000 PLC testing
3. Battery Chargers:
 - a. Lecture: Selection and Sizing
4. Auto Ejects
 - a. Lecture: Operation & Installation
 - b. Hands-on: Super Auto Eject rebuild
5. Solar Power
 - a. Lecture: Operation & Applications
6. Auto Pumps
 - a. Lecture: Operation & Installation
 - b. Hands-on NEW 12V pump rebuild using K770A kit
7. New Products



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TEST DAY



7:00 AM – 8:00 AM REGISTRATION FOR EVTCC EXAMS

- You must have your photo I.D. and registration confirmation letter from the EVT Certification Commission.

8:00 AM – 12:00 PM EVTCC TEST PERIOD

- Test site number **FL51719**
- You may take more than one exam during this testing period.

CLASSES BEGIN AT 8:00 AM WITH A ONE-HOUR LUNCH AND TWO FIFTEEN MINUTE BREAKS

PLEASE NOTE: Classes may be canceled due to under enrollment or instructor difficulties.

You will be automatically enrolled in **your second option - space available, or third option if your second option is filled or cancelled.**



Technicians are to provide their own textbooks and reference materials as recommended by the instructors and the course criteria and requirements as shown in the EVT Certification Program.

Technicians are urged to study the materials recommended in the class description prior to coming to the academy. For additional information, refer to the Emergency Vehicle Technician Certification (EVTCC) Program Handbook available from the EVTCC by calling (847) 426-4075 or by going on line at www.evtcc.org.

Reference materials may be obtained from:

1. International Fire Service Training Association (IFSTA) Call 800.654.4055 or go to www.ifsta.org
2. National Fire Protection Association (NFPA) Quincy, Ma. 800.344.3555 or order at www.nfpa.org
3. James Duffy's book Goodheart-Wilcox 708.687.5000 or at www.Amazon.com
4. Interstate Batteries, 12770 Merit Drive, #400, Dallas, TX