

Active Threat Integrated Response Course

PER-340

Course Design Document

October 2019



LSU NCBRT

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Active Threat Integrated Response Course Version 3.1

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FEMA's National Training and Education Division (NTED) offers a full catalog of courses at no cost to help build critical skills that responders need to function effectively in mass-consequence events. Course subjects range from weapons of mass destruction (WMD), terrorism, cyber security, and agro terrorism to citizen preparedness and public works. NTED courses include multiple delivery methods: instructor-led (direct deliveries), train-the-trainer (indirect deliveries), customized (conferences and seminars), and web-based. Instructor-led courses are offered in residence (at a training facility) or through mobile programs, in which courses are brought to state and local jurisdictions that request the training. A full list of NTED courses can be found at http://www.firstrespondertraining.gov.

Course Description

Overview

The Active Threat Integrated Response Course is a 3-day, 24-hour, performance-level, direct delivery course designed to improve integration between law enforcement, fire, and emergency medical services (EMS) during active threat incidents. The course provides law enforcement officers with key medical skills based on tactical emergency casualty care (TECC) guidelines, which can be used at the point of injury to increase survivability of victims in active threat incidents.

Participants will discuss rescue task forces (RTFs), basic hemorrhage control and airway management, and organization of a unified response. Additionally, participants will take part in discipline-specific practical exercises that review skills in either law enforcement tactics or medical response. All participants will engage in a large-scale practical exercise that tests all of the concepts and skills introduced and practiced throughout the course.

Core Capabilities

The terminal learning objectives of this course align with the following core capabilities:

- Planning
- Operational coordination
- Interdiction and disruption
- Long-term vulnerability reduction
- On-scene security and protection
- Situational assessment

Scope

This course is designed to increase the effectiveness, coordination, and resource integration between law enforcement, fire, and EMS when responding to active threat and mass casualty incidents in order to improve the safety and survivability of victims of such events.

This course is taught in a **Direct Delivery (DD) format** by NCBRT instructors; this format is appropriate for anyone who is interested in the content of the course. Participants receive credit for the course but are not certified to instruct.

Target Audience

The primary audience for this course is a mixture of police officers, fire personnel (fire fighters), EMS, and first medical personnel working or volunteering for local, state, and tribal jurisdictions throughout the United States and US territories. It is recommended for chief and command level personnel to attend the course as well as line officers. The course introduces concepts and national response models which may result in policy change considerations in some jurisdictions.

The course is designed to accommodate 25 law enforcement officers and 15 fire or EMS providers.

Secondary audiences for this course include but are not limited to the following:

- Emergency managers
- Corrections officers
- Hospital medical personnel

Prerequisites

Participants should be state-certified law enforcement, fire, EMS, or first medical response providers. EMS providers should be EMT-B certified (preferably EMT-I or EMT-P). All participants are recommended to completed IS-100, IS-300, IS-400, and IS-700. Law enforcement participants are recommended to have completed active threat response training.

Some of the practical exercise portions of this course may be physically demanding for some participants. This may include moving quickly (jogging) for short distances and lifting or moving role players as simulated patients while working as part of a team of responders.

To enroll in this course, participants must be US citizens and must possess or obtain a FEMA student identification number (SID).

Course Length

This course is designed for presentation over three days. Beginning and ending times for instruction can be adjusted to accommodate local requirements at the training location. However, the schedule should permit one 10-minute break approximately every hour and a one-hour lunch break. Total instructional time is 24 hours for nine standard modules.

Required Materials and Facilities

NCBRT-Provided

The following equipment and materials are required to support instruction in this course:

- Instructor Guides
- Presentation slides
- Audiovisual kit

- Projection screen
- Attendance sheets
- Role player sign-in sheet
- Incident report forms
- Registration forms
- Pre-tests
- Pre-test answer sheet
- Post-tests
- Post-test answer sheet
- DHS Student Assessment of Course and Instructors Evaluation forms
- Easel pads and stands
- Black dry erase markers
- Integrated Response Models
- Pencils
- Tent name cards
- Sharpies
- Packing tape
- ICS Incident Response foam board map
- Tabletop exercise Area maps
- Tabletop exercise Structure maps
- Tabletop exercise Specialty Location marker card sets
- Tabletop exercise Triangular Individual Site ICS Role token sets
- Tabletop exercise Circular Response Resource token sets
- Tabletop exercise Circular Prestaging and Extra token sets
- Laminated red Casualty cards
- Laminated green Casualty cards
- Safety vests (orange, yellow, red, blue, green, white, and tan)
- Laminated role identification cards for safety vests
- MP3 player (or similar device) with distraction sounds
- Party Rocker with Lights
- Ice chest with ice for day 3
- Blank guns for instructor use
- Metal detectors
- Glock 17T blue training gun
- Hip holsters
- Blank ammunition rounds
- Blue training machete
- Blue inert training guns
- Training handcuffs
- Ear protection
- Eye protection
- Megamovers (poleless litter)
- Webbing
- Sheets of lined tablet paper
- Radios

- Radio ear pieces
- Patient Vitals cards in badge holders
- CAT Gen 7 blue training tourniquets
- SOFTT-W tourniquet
- Delphi tourniquet
- Miscellaneous items for improvised tourniquets
- Individual first aid kits (IFAK)
- Mylar warming blankets
- · Rolls of medical tape
- 2" rolls of gauze
- Triangular bandages
- Emergency pressure dressings
- True Clot hemorrhage training kit
- Combat Gauze Quick Clot
- OLAES bandages
- Hypean chest seals
- Commercial chest seals
- Boxes of nitrile gloves in medium, large, and x-large
- Containers of hand wipes
- Sterile alcohol pads
- Sharps containers
- Scalpels
- 15 ml disposable syringes
- 10 ml disposable syringes
- 14g 1-1/2" IV catheter
- Tracheal hooks
- 6.0 endotracheal tube
- 3.0 endotracheal tube
- Bougie endotracheal tube introducers
- Commercial needle decompression kits
- EMT shears
- Handheld vascular doppler instrument and lubricant
- Oropharyngeal airways (OPA)
- Nasopharyngeal airways (NPA)
- Mylar warming blankets
- Adult Ambu bags
- Pediatric Ambu bags
- Stethoscopes
- Blood pressure cuffs
- Pediatric mannequins
- Tourniquet simulator leg
- True Clot wound trainers
- Pneumothorax (chest simulator)
- Replacement skin for chest simulator
- SPEAR needle decompression needles

- Simulated blood
- Blood mixing bottles
- Bottle of soap
- Green blood pouches
- Plastic pan to place tourniquets
- Box of absorbent pads
- Alka Seltzer
- Triage tags
- Porcine tracheas
- Porcine trachea cricothyroidotomy stands
- Large trays for placing porcine trachea
- Trauma FX Whole-Body Simulator
- Wound Cube
- Control-Cric tools
- Manual jet ventilator without gauge and regulator
- Acutronic pediatric transtracheal catheters, 14G
- Absorber chamois cloths
- Animal skin chamois
- Box of 1.34" push pins
- Techline bags
- Techline clips
- Squeeze bulbs
- Tubes
- Tube reducers
- Red tube reducers
- Medic bags
- LE go bags
- Assorted role player clothing (Med-XXL)
- Moulage trainer tote
 - Compound Fracture Wound
 - Evisceration Wound
 - GSW Bicep Wound
 - GSW Chest Wound
 - GSW Entry Wounds (stick on)
 - GSW Exit Wounds (stick on)
 - GSW Groin Wound
 - GSW Leg Wound
 - Knife Wound (stick on)
 - Partial Arm Amputation
 - Thigh Laceration
 - Spirit gum or similar adhesive
 - Moulage wax
 - Grease paint (white, blue, red, brown)
 - Make up sponges
 - Carry pouches
 - Moulage blankets

- Blood pool simulators
- Rolls of black plastic sheeting
- Rolls of orange gaffers tape
- Rolls of double stick tape
- Roll of paper towels
- Clorox spray
- Can of spray silicone
- AA batteries
- Ratchet E-track straps
- Replacement chem lights
- · Roll of contractor trash bags, 2.5ml thickness or greater
- Box of gallon size Ziploc bags

Host-Provided

The host agency will be required to provide the following classroom and logistical needs:

- Classroom space for the number of participants plus 10 instructional support personnel that includes the following:
 - Environmentally controlled (heating, ventilation, and air conditioning, or HVAC)
 - Access to the classroom facility the day prior to the first class for classroom set up
 - Audiovisual equipment (projection screen or area in classroom for projection)
 - Eight power outlets in the classroom for audiovisual components and computers used by the instructional support personnel and participants during the course
 - Adequate security to avoid resetting classroom daily
- Building or structure, preferably a school or large dedicated law enforcement or fire training facility, that includes the following:
 - Electricity, functional lighting, climate control, running water, and functioning restroom facilities
 - A minimum of two long hallways, preferably at least 8' wide, with multiple rooms for teaching tactics and rescue task force integration, as well as areas suited to medical teaching stations
 - Capability of using exterior areas (parking lot and common areas) of the facility
 - A structure that has two or more stories or multiple wings is preferred
- A location to receive and secure equipment in close proximity to the classroom.
 - 10 containers of training materials (from 25"x20"x14" to 34"x25"x24" weighing up to 140 pounds per case)
- Adequate parking for participant and instructional personnel
- Clear signage indicating classrooms, training areas, and parking areas, as well as (if necessary) a public notice that responder training is taking place
- Water coolers or bottled water for participants on day 3 practical exercises
- 2 ambulance vehicles for day 3 practical exercises
- 2 local agency dispatch personnel (one police and one fire and EMS if not combined operators) for day 3 practical exercises
- 10—15 role players for day 3 practical exercises
 - Note: Role players should be instructed to wear old clothing suitable for getting dirty and possibly wet. Moulage and other simulated injuries, including simulated wet blood, will be used on the role players.

Participant Equipment Requirements

Clothing

- Participants are expected to perform the actual functions of active attack response, rescue, and evacuation, which includes a moderate level of physical activity both inside and outside of the training site on all three days of the course delivery, as well as exposure to simulated blood. Clothing should be
 - appropriate for the seasonal weather (jackets, gloves, tee-shirts, rain gear),
 - comfortable and easy to move in,
 - sturdy,
 - washable, and
 - in accordance with departmental or agency policy.

Specialized Gear

- Optional fire/EMS: Rescue equipment such as litters or skeds
- Optional LE: Armor and helmets, but must be sanitized of any and all weapons

Weapons

None—participants will be screened prior to any practical exercise

Testing and Certification

Participants will take two tests—a pre-test administered during the first module (prior to instruction), and a post-test administered during the last module after completion of instruction. Each test will include questions that reflect the course objectives and assess participants' understanding of the learning objectives. Participants who perform successfully on the post-test (scoring 70% or better) will receive a Certificate of Completion. Participants who do not achieve a passing score can re-test. Participants may request a Certificate of Attendance if they require documentation of their presence at the class.

Instructors will evaluate individual participation in classroom activities and discussions to determine participants' achievement of affective goals. Active participation and expressed understanding for and appreciation of the contributions of all emergency response agencies will be accepted as reflecting achievement of affective goals.

Reference List

(ACEP) American College of Emergency Physicians. 2018. *Rapid Sequence Intubation*. February. https://www.acep.org/patient-care/policy-statements/rapid-sequence-intubation/.

Adams, J. P., and P. G. Murphy. 2000. "Obesity in Anesthesia and Intensive Care." *BJA* 85, no. 1 (July): 91–108.

- AlertFind. "Active Shooters in 2018: Key Stats and Facts." Accessed January 31, 2019. https://alertfind.com/active-shooter-facts/.
- Associated Press (AP). 2016. "Jacob Hall, South Carolina School Shooting Victim, On Life Support, Family Says." CBS News. Accessed March 19, 2019. https://www.cbsnews.com/news/jacob-hall-south-carolina-school-shooting-victim-life-support-family/.
- Attia, Rafik R., George E. Battit, and John D. Murphy. 1975. "Transtracheal Ventilation." *Journal of the American Medical Association* 234, no. 11 (December): 1152–1153.
- Bennett, J. D., S. C. Guha, and A. B. Sankar. 1996. "Cricothyrotomy: The Anatomical Basis." Journal of the Royal College of Surgeons of Edinburgh 41, no. 1 (February): 57–60.
- Benumof, Jonathan L., and Mark S. Scheller. 1989. "The Importance of Transtracheal Jet Ventilation in the Management of the Difficult Airway." *Journal of the American Society of Anesthesiologists* 71, no. 5 (November): 769–778.
- Blanda, Michelle. 2005. "Geriatric Trauma: Current Problems, Future Directions." Retrieved from www.saem.org/download/02blanda.pdf.
- Bledsoe, B., R. Porter, and B. Shade. 1997. *Paramedic Emergency Care*. Upper Saddle River: Brady Prentice Hall.
- Boyce, James R., Glenn E. Peters, William R. Carroll, J. Scott Magnuson, Allison McCrory, and Arthur M. Boudreaux. 2005. "Preemptive Vessel Dilator Cricothyrotomy Aids in the Management of Upper Airway Obstruction." *Canadian Journal of Anesthesia* 52, no. 7 (August–September): 765–769.
- Campbell, John E. 1995. *Basic Trauma Life Support for Paramedics and Advanced EMS Providers*. Englewood Cliffs: Brady.
- Cartagena, Rafael. 2005. "Preoperative Evaluation of Patients with Obesity and Obstructive Sleep Apnea." *Anesthesiology Clinics of North America* 23, no. 3 (September): 463–478.
- CAT Resources, LLC. "CAT Combat Application Tourniquet Instructions for Use." Accessed January 23, 2019. http://www.combattourniquet.com/wp-content/uploads/2016/09/RAW-29260-REV01-INSTR-CAT-US-CRI.pdf.
- Centers for Disease Control and Prevention (CDC). No date. "Glasgow Coma Scale." Accessed May 21, 2019. https://www.cdc.gov/masstrauma/resources/gcs.pdf.
- Chan, Theodore C., Gary M. Vilke, Kenneth J. Bramwell, Daniel P. Davis, Robert S. Hamilton, and Peter Rosen. 1999. "Comparison of Wire-Guided Cricothyrotomy Versus Standard Surgical Cricothyrotomy Technique." *Journal of Emergency Medicine* 17, no. 6 (November–December): 957–962.

- Committee for Tactical Emergency Casualty Care. 2015. "Tactical Emergency Casualty Care (TECC) Guidelines." *Resources*. June. http://www.c-tecc.org/images/content/TECC Guidelines JUNE 2015 update.pdf.
- Committee on TCCC (CoTCCC). 2016. "Femoral Bleeding with Disclaimer." YouTube, September 25. https://www.youtube.com/watch?v=6BMwZ6tomn0.
- Cook, T. M., J. P. Nolan, P. T. Magee, and J. H. Cranshaw. 2007. "Needle Cricothyroidotomy." *Anaesthesia* 62, no. 3 (March): 289–290.
- Coté, Charles J., Roland D. Eavey, I. David Todres, and Donald E. Jones. 1988. "Cricothyroid Membrane Puncture: Oxygenation and Ventilation in a Dog Model Using an Intravenous Catheter." *Critical Care Medicine* 16, no. 6 (June): 615–619.
- Craven, R. M., and R. G. Vanner. 2004. "Ventilation of a Model Lung Using Various Cricothyrotomy Devices." *Anaesthesia* 59, no. 6 (June): 595–599.
- Dargin, James and Ron Medzon. 2010. "Emergency Department Management of the Airway in Obese Adults." *Annals of Emergency Medicine* 56, no. 2 (August): 95–104.
- Dayan, Lior, Chaim Zinmann, Shalom Stahl, and Doron Norman. 2008. "Complications Associated with Prolonged Tourniquet Application on the Battlefield." *Military Medicine* 173, no. 1 (January 1): 63–66. https://doi.org/10.7205/MILMED.173.1.63.
- Demetriades, D. L., M. Karaiskakis, G. Velmahos, K. Alo, E. Newton, J. Murray, J. Asensio, H. Belzberg, T. Berne, and W. Shoemaker. 2002. "Effect on Outcome of Early Intensive Management of Geriatric Trauma Patients." *British Journal of Surgery* 89, no. 10 (October): 1319–1322.
- DHS (Department of Homeland Security). n.d. "IED Attack, Improvised Explosive Devices." News & Terrorism Communicating in a Crisis – Factsheet. https://www.dhs.gov/sites/default/files/publications/prep_ied_fact_sheet.pdf.
- Eastridge, Brian J., Robert L. Mabry, Peter Seguin, Joyce Cantrell, Terrill Tops, Paul Uribe, Olga Mallett, Tamara Zubko, Lynne Oetjen-Gerdes, Todd E. Rasussen, Frank K. Butler, Russel S. Kotwal, John B. Holcomb, Charles Wade, Howard Champion, Mimi Lawnick, Leon Moores, and Lorne H. Blackbourne. 2012. "Death on the Battlefield (2001–2011): Implications for the Future of Casualty Care." *Journal of Trauma and Acute Care Surgery* 73, no. 6 (December): S431–S437. http://www.ncbi.nlm.nih.gov/pubmed/23192066.
- Ernest, Eric, Aaron Burnett, and R. J. Frascone. 2014. "Recognizing and Managing Traumatic Neck Injuries." *Journal of Emergency Medical Services* 39, no. 4 (April). https://www.jems.com/articles/print/volume-39/issue-4/features/recognizing-and-managing-traumatic-neck.html.

- Fabbri, William P. 2014. "FBI's View to Improving Survival in Active Shooter Events:
 Recommendations and Reflections Two Years after Sandy Hook." *Journal of Emergency Medical Services* 39, no. 9 (September 29).
 https://www.jems.com/articles/supplements/special-topics/when-time-matters-most/fbi-s-view-improving-survival-active-sho.html.
- FBI (Federal Bureau of Investigation). "Active Shooter Incidents in the United States in 2018." Accessed May 13, 2019. https://www.fbi.gov/file-repository/active-shooter-incidents-in-the-us-2018-041019.pdf/view.
- ———. "Quick Look: 250 Active Shooter Incidents in the United States from 2000 to 2017." Accessed May 15, 2019. https://www.fbi.gov/about/partnerships/office-of-partner-engagement/active-shooter-incidents-graphics.
- FEMA (Federal Emergency Management Agency). *Glossary*. Accessed October 4, 2019. https://training.fema.gov/programs/emischool/el361toolkit/glossary.htm#F.
- ——. 2004. IS 200 Applying ICS. Washington DC: U.S. Government Printing Office.
- ———. 2006. *Task Book: Employee Job Aid: Staging Area Manager*. Washington DC: U.S. Government Printing Office.
- ———. 2014. *National Incident Management System Independent Study Program*. July 25. FEMA, Emergency Management Institute. http://www.training.fema.gov/IS/NIMS.aspx.
- . 2017. National Incident Management System, Third Edition. October. https://www.fema.gov/media-library-data/1508151197225-ced8c60378c 3936adb92c1a3ee6f6564/FINAL NIMS 2017.pdf.
- . 2018. "1 October After-Action Report." Accessed May 15, 2019. https://www.hsdl.org/?view&did=814668.
- FICEMS (Federal Interagency Committee on Emergency Medical Services). 2014. National Implementation of the Model Uniform Core Criteria for Mass Casualty Incident Triage. http://www.nhtsa.gov/staticfiles/nti/pdf/811891-Model UCC for Mass Casualty Incident Triage.pdf.
- First Care Provider. 2017. *How to Make a Tourniquet: Improvising a Tourniquet*. (April 7). https://firstcareprovider.org/blog/tk-how-to.
- Flores, Ricardo. 2013. "Saving Life and Limb." On Patrol Magazine 4, no. 4 (Winter): 46–47. <a href="http://bt.royle.com/publication/index.php?i=269684&m=&l=&p=1&pre=&ver=html5#{%22-page%22:48,%22issue-id%22:%22181115%22}.
- Girardeau, Robert P. 2015. "Assessing and Managing Facial Trauma." *Journal of Emergency Medical Services* 40, no. 6 (June). https://www.jems.com/articles/print/volume-40/issue-6/features/assessing-and-managing-facial-trauma.html.

- Glassberg, Elon, Ari M. Lipsky, Gadi Lending, Ilia Sergeev, Avishai Elbaz, Alexander Morose, Udi Katzenell, and Nachman Ash. 2013. "Blood Glucose Levels as an Adjunct in Prehospital Field Triage." *American Journal of Emergency Medicine* 31, no. 3 (March): 556–561.
- Godfrey, William M., David C. Agan, R. Otterbacher, and D. Fender. 2013. 4 Best Practices for Active Shooter Incident Management: Lessons Learned from 10 Active Shooter Exercises with the University of North Florida. Orlando, FL: C3 Pathways, Inc. http://www.c3pathways.com/whitepaper/White-Paper-4-Best Practices Active Shooter.pdf.
- ——. 2014a. *Active Shooter Incident Management Checklist*. Orlando, FL: C3 Pathways, Inc. http://www.c3pathways.com/asc/.
- 2014b. Active Shooter Incident Management Checklist Help Guide. Orlando, FL: C3 Pathways, Inc. http://www.c3pathways.com/asc/Active Shooter Checklist Help Guide.pdf.
- Hannan, Edward L., Christine Hicks Waller, Louise Szypulski Farrell, and Carl Rosati. 2004. "Elderly Trauma Inpatients in New York State: 1994–1998. *Journal of Trauma and Acute Care Surgery* 56, no. 6 (June): 1297–1304.
- Hill, J. F. 1979. "Blast Injury with Particular Reference to Recent Terrorist Bombing Incidents." *Annals of the Royal College of Surgeons of England* 61, no. 1 (January): 4–11.
- Hogan, David E., Joseph F. Waeckerle, Daniel J. Dire, and Scott R. Lillibridge. 1999. "Emergency Department Impact of the Oklahoma City Terrorist Bombing." *Annals of Emergency Medicine* 34, no. 2 (August): 160–167.
- Holzrichter, D., L. Meiss, S. Behrens, and V. Mickley. 1987. "The Rise of Blood Sugar as an Additional Parameter in Traumatic Shock." *Archives of Orthopaedic and Traumatic Surgery* 106, no. 5 (February): 319–322.
- Homeland Security Presidential Directive/HSPD-5. 2003 "Management of Domestic Incidents." Homeland Security: Publications Library. February 28. https://www.dhs.gov/sites/default/files/publications/Homeland%20Security%20Presidential%20Directive%205.pdf.
- Howe, P. 2005. *Advanced Hostage Rescue* Course. Nacogdoches, TX: Combat Shooting and Tactics (CSAT).
- Hubble, M., and J. Hubble. 2002. *Principles of Advanced Trauma Care*. Albany: Delmar Thompson Learning.
- IACP (International Association of Chiefs of Police). 2018. "Model Policy: Active Shooter." *The IACP*, April. https://www.theiacp.org/sites/default/files/2018-08/ActiveShooterPolicy2018.pdf.

- IAFF (International Association of Fire Fighters). "IAFF Position Statement: Active Shooter Events." Accessed March 18, 2019. *Alameda County Public Health Department*. http://www.acphd.org/media/372823/iaff active shooter position statement.pdf.
- ——. "IAFF Position Statement: Rescue Task Force Training." Accessed March 18, 2019. IAFF FireFighters. http://services.prod.iaff.org/ContentFile/Get/17073.
- Ihra, G., G. Gockner, A. Kashanipour, and A. Aloy. "High-Frequency Jet Ventilation in European and North American Institutions: Developments and Clinical Practice." 2000. *European Journal of Anaesthesiology* 17, no. 7 (July): 418–430.
- Interagency Board for Emergency Preparedness and Response. 2016. *Active Shooter/Hostile Event (ASHE) Guide*. June. https://www.interagencyboard.org/sites/default/files/publications/IAB%20Active%20Shooter%20&%20Hostile%20Event%20Guide.pdf.
- International Public Safety Association. 2017. Rescue Task Force Best Practices Guide.
- Jacobs, David G., Brian Ray Plaisier, Philip S. Barie, Jeffrey S. Hammond, Michele R. Holevar, Karlene E. Sinclair, Thomas M. Scalea, Wendy Wahl, and EAST Practice Management Guidelines Work Group. 2003. "Practice Management Guidelines for Geriatric Trauma: The EAST Practice Management Guidelines Work Group." Journal of Trauma and Acute Care Surgery 54, no. 2 (February): 391–416. https://www.east.org/tpg/geriatric.pdf.
- Jacobs, H. Barry, Nicholas P. D. Smyth, and Philip Witorsch. 1974. "Transtracheal Catheter Ventilation: Clinical Experience in 36 Patients." *Chest* 65, no. 1 (January): 36–40.
- Jacobs, Lenworth M., David Wade, Norman E. McSwain, Frank K. Butler, William Fabbri, Alexander Eastman, Alasdair Conn, and Karyl J. Burns. 2014. "Hartford Consensus: A Call to Action for THREAT, A Medical Disaster Preparedness Concept." *Journal of the American College of Surgeons* 218, no. 3 (March): 467–475. https://doi.org/10.1016/j.jamcollsurg.2013.12.009.
- Jacobs, L.M., McSwain Jr, N.E., Rotondo, M.F., Wade, D., Fabbri, W., Eastman, A.L., Butler Jr, F.K. and Sinclair, J., 2013. "Improving Survival from Active Shooter Events: The Hartford Consensus." *Journal of Trauma and Acute Care Surgery*, 74(6), pp. 1399-1400.
- Jacobs, L. M., N. E. McSwain, M. F. Rotondo, D. Wade, W Fabbri, A. L. Eastman, and J. Sinclair. 2013. "Improving Survival from Active Shooter Events: The Hartford Consensus." Clinton: National Association of Emergency Medical Technicians.
- Jacoby, J. J., W. Hamelberg, J. P. Reed, and B. Gillespie. 1951. "A Simple Technique for Artificial Respiration." *American Journal of Physiology* 167: 798.
- Joint Committee to Create a National Policy to Enhance Survivability from Mass Casualty Shooting Events. 2013. "Improving Survival from Active Shooter Events: The Hartford Consensus." *Bulletin of the American College of Surgeons* 98, no. 6 (June 1). http://bulletin.facs.org/2013/06/improving-survival-from-active-shooter-events/.

- Joint Committee to Create a National Policy to Enhance Survivability from Mass Casualty Shooting Events. 2013. "Active Shooter and Intentional Mass-Casualty Events: The Hartford Consensus II." *Bulletin of the American College of Surgeons*. 98, no. 9 (September 1): 18–22. http://bulletin.facs.org/2013/09/hartford-consensus-ii/.
- Jorden, Robert C., Ernest E. Moore, John A. Marx, and Benjamin Honigman. 1985. "A Comparison of PTV and Endotracheal Ventilation in an Acute Trauma Model." *Journal of Trauma* 25, no. 10 (October): 978–983.
- Katz, Eliezer, Boaz Ofek, Jacob Adler, Harry B. Abramowitz, and Michael M. Krausz. 1989. "Primary Blast Injury After a Bomb Explosion in a Civilian Bus." *Annals of Surgery* 209, no. 4 (April): 484–488.
- Kelly, Joseph F., Amber Ritenhour, Daniel F. McLaughlin, Karen Bagg, Amy Apodaca, Craig Mallak, Lisha Pearse, Mary Lawnick, Howard Champion, Charles Wade, John Holcomb. 2008. "Injury Severity and Causes of Death from Operation Iraqi Freedom and Operation Enduring Freedom: 2003–2004 vs 2006." *Journal of Trauma: Injury, Infection, and Critical Care* 64, no. 2 (January): S21–S26.
- King, David R. 2016. "Children and Tourniquets." *Pediatric Trauma Society*. http://members.npediatrictraumasociety.org/newsletters/2016-Spring.cgi?s=open&aID=article8.
- Kofke, W. A., J. Horak, M. Stiefel, and J. Pascual. 2011. "Viable Oxygenation with Cannula-Over-Needle Cricothyrotomy for Asphyxial Airway Occlusion." *British Journal of Anaesthesia* 107, no. 4 (October): 642–643.
- Kotwal, Russ S., Kevin C. O'Connor, Troy R. Johnson, Dan S. Mosely, David E. Meyer, and John B. Holcomb. 2004. "A Novel Pain Management Strategy for Combat Casualty Care." *Annals of Emergency Medicine* 44, no. 2 (August): 121–127.
- Landesman, L. Y., J. Malilay, R. A. Bissell, S. M. Becker, L. Roberts, and M. S. Ascher. 2001. "Roles and Responsibilities of Public Health in Disaster Preparedness and Response." In *Public Health Administration: Principles for Population-Based Management*. Gaithersburg, Maryland: Aspen Publishers.
- Lane, Peter, Barbara Sorondo, and John J. Kelly. 2003. "Geriatric Trauma Patients—Are they Receiving Trauma Center Care?" *Academic Emergency Medicine* 10, no. 3 (March): 244–250.
- Langeron, Olivier, Eva Masso, Catherine Huraux, Michel Guggiari, Andre Bianchi, Pierre Coriat, and Bruno Riou. 2000. "Prediction of Difficult Mask Ventilation." *Anesthesiology* 92, no. 5 (May):1229–1236.
- Las Vegas Metropolitan Police Department. 2019. *1 October After Action Review*. October. https://www.lvmpd.com/en-us/Documents/1 October AAR Final 06062019.pdf.

- Leibovici, Dan, Ofer N. Gofrit, Michael Stein, Shmuel C. Shapira, Yossi Noga, Rafael J. Heruti, and Joshua Shemer. 1996. "Blast Injuries: Bus Versus Open-Air Bombings—A Comparative Study of Injuries in Survivors of Open-Air Versus Confined-Space Explosions." *Journal of Trauma and Acute Care Surgery* 41, no. 6 (December): 1030–1035.
- Limmer, Daniel J., Michael F. Okeefe, and Harvey D. Grant. *Emergency Care*, 13th ed. Boston: Pearson, 2015.
- Little, Charles M., Michael G. Parker, and Rafael Tarnopolsky. 1986. "The Incidence of Vasculature at Risk During Cricothyroidostomy." *Annals of Emergency Medicine* 15, no. 7 (July): 805–807.
- Mace, Sharon Elizabeth, and Nazeema Khan. 2008. "Needle Cricothyrotomy." *Emergency Medicine Clinics of North America* 26, no. 4 (November): 1085–1101.
- Mallonee, Sue, Sheryll Shariat, Gail Stennies, Rick Waxweiler, David Hogan, and Fred Jordan. 1996. "Physical Injuries and Fatalities Resulting from the Oklahoma City Bombing." *Journal of the American Medical Association* 276, no. 5 (August): 382–387.
- Mathew, Paul. 2003. "Physiologic Effects of Acute Hemorrhage." *Memorial University of Newfoundland: Faculty of Medicine*, December 3. https://www.med.mun.ca/getdoc/72c88a9c-bb09-4587-bf1e-77e133d80065/PhysiologicEffectsAcuteHemorrhage.aspx.
- McGwin Jr, Gerald, Paul A. MacLennan, Jessaka Bailey Fife, Gregory G. Davis, and Loring W. Rue III. 2004. "Preexisting Conditions and Mortality in Older Trauma Patients." *Journal of Trauma and Acute Care Surgery* 56, no. 6 (June): 1291–1296.
- Merriam-Webster. 2019. https://www.merriam-webster.com/dictionary/.
- Metropolitan Police Department, Washington D.C. 2014. *After Action Report Washington Navy Yard September 16, 2013*. July 11. https://mpdc.dc.gov/sites/default/files/dc/sites/mpdc/publication/attachments/MPD%20AAR_Navy%20Yard_Posting_07-2014.pdf.
- Morrison, Jonathan J., Joseph J. Dubose, Todd E. Rasmussen, and Mark J. Midwinter. 2012. "Military Application of Tranexamic Acid in Trauma Emergency Resuscitation (MATTERs) Study." *Archives of Surgery* 147, no. 2 (February): 113–119.
- Muche, J., and S. McCarty. 2017. "Geriatric Rehabilitation." *Emedicine*. <u>www.emedicine.com/pmr/topic164.htm</u>.
- Mutzbauer, T. S., W. Keul, M. Bernhard, A. Volkl, and A. Gries. 2005. "[Invasive Techniques in Emergency Medicine. IV. Cricothyrotomy in Emergency Situations]." *Der Anaesthesist* 54, no. 2 (February): 145–154.

- Mutzbauer, T. S., R. Munz, M. Helm, L. A. Lampl, and M. Herrmann. 2003. "[Emergency Cricothyrotomy—Puncture or Anatomical Preparation? Peculiarities of Two Methods for Emergency Airway Access Demonstrated in a Cadaver Model]." *Der Anaesthesist* 52, no. 4 (April): 304–310.
- NAEMT (National Association of Emergency Medical Technicians). 2014. *Prehospital Trauma Life Support Manual 7th Edition (Military). Tactical Field Care.* Edited by F. K. Bulter, S. Giebner, N. McSwain, and P. Pons. Jones and Bartlett Learning.
- NAEMT (National Association of Emergency Medical Technicians). 2016. *Prehospital Trauma Life Support Manual 8th Edition (Military). Tactical Field Care.* Edited by F. K. Bulter, S. Giebner, N. McSwain, and P. Pons. Jones and Bartlett Learning
- NAEMT (National Association of Emergency Medical Technicians). "TCCC-AC Guidelines and Curriculum." Accessed March 18, 2019. http://www.naemt.org/education/naemt-tccc/tccc-ac-guidelines-and-curriculum.
- National Center for Biomedical Research & Training (NCBRT)/Academy of Counter-Terrorist Education. 2018. *Law Enforcement Active Shooter Emergency Response Instructor Guide*. 3rd ed. Baton Rouge, LA: Louisiana State University.
- National Police Foundation. 2018. *After-Action Review of the Orlando Fire Department Response to the Attack at Pulse Nightclub*. October. http://www.cityoforlando.net/fire/wp-content/uploads/sites/4/2018/11/OFD-After-Action-Review-Final5b98855d.pdf.
- National Tactical Police Officers Association. 2002. *High Risk Patrol and Patrol Rifle Instructor Course*. Houston, TX: National Tactical Police Officers Association.
- Navsa, N., G. Tossel, and J. M. Boon. 2005. "Dimensions of the Neonatal Cricothyroid Membrane—How Feasible is a Surgical Cricothyroidotomy?" *Paediatric Anaesthesia* 15, no. 5 (May): 402–406.
- Nicholls, Scott E., Timothy W. Sweeney, Robinson M. Ferre, and Tania D. Strout. 2008. "Bedside Sonography by Emergency Physicians for the Rapid Identification of Landmarks Relevant to Cricothyrotomy." *American Journal of Emergency Medicine* 26, no. 8 (October): 852–856.
- NTOA (National Tactical Officers Association). 2018. *Tactical Response and Operations Standard for Law Enforcement Agencies*. April. http://ntoa.org/pdf/swatstandards.pdf.
- Nutbeam, T., R. Clarke, T. Luff, D. Enki, and D. Gay. 2017. "The Height of the Cricothyroid Membrane on Computed Tomography Scans in Trauma Patients." *Anaesthesia* 72, no. 8 (August): 987–992.

- O'Neill, James P., John J. Miller, and James R. Waters. 2016. *Active Shooter Recommendations and Analysis for Risk Mitigation*. 2016 Edition as Released by the New York City Police Department. https://www1.nyc.gov/assets/nypd/downloads/pdf/counterterrorism/active-shooter-analysis2016.pdf.
- Patel, Rajesh G. 1999. "Percutaneous Transtracheal Jet Ventilation: A Safe, Quick, and Temporary Way to Provide Oxygenation and Ventilation When Conventional Methods Are Unsuccessful." *Chest* 116, no. 6 (December): 1689–1694
- Perel, P., R. Al-Shahi Salman, T. Kawahara, Z. Morris, D. Prieto-Merino, I. Roberts, P. Sandercock, H. Shakur, and J. Wardlaw. 2012. "CRASH-2 (Clinical Randomisation of an Antifibrinolytic in Significant Haemorrhage) Intracranial Bleeding Study: The Effect of Tranexamic Acid in Traumatic Brain Injury, a Nested Randomised, Placebo-Controlled Trial." *Health Technology Assessment* 16, no. 13: 1–54. https://doi.org/10.3310/hta16130.
- Phillips, Y. Y. 1986. "Primary Blast Injuries." *Annals of Emergency Medicine* 15, no. 12 (December): 1446–1450.
- Porth, C. 1990. "Pathophysiology: Concepts of Altered Health States." Philadelphia: J. B. Lippincott Company.
- Ramasamy, Arul Murugan, Adam M. Hill, Spyridon D. Masouros, Iain Monro Gibb, Royston Phillip, Anthony M J Bull and Jon C. Clasper. 2013. "Outcomes of IED Food and Ankle Blast Injuries." *Journal of Bone and Joint Surgery* 95, no. 5. https://www.semanticscholar.org/paper/Outcomes-of-IED-foot-and-ankle-blast-injuries.-Ramasamy-Hill/b791d0caa51f1087f8c3a311cbcd27387ba5bede?navld=paper-header.
- Ravussin, P., M. Bayer-Berger, P. Monnier, M. Savary, and J. Freeman. 1987. "Percutaneous Transtracheal Ventilation for Laser Endoscopic Procedures in Infants and Small Children with Laryngeal Obstruction: Report of Two Cases." *Canadian Journal of Anaesthesia* 34, no. 1 (January): 83–86.
- Reed, J. P., J. P. Kemph, W. Hamelberg, F. A. Hitchcock, and J. Jacoby. 1954. "Studies with Transtracheal Artificial Respiration." *Anesthesiology* 15, no. 1 (January): 28–41.
- Rehm, Christina G., Sandra M. Wanek, Eliot B. Gagnon, Slone K. Pearson, and Richard J. Mullins. 2002. "Cricothyroidotomy for Elective Airway Management in Critically III Trauma Patients with Technically Challenging Neck Anatomy." *Critical Care* 6, no. 6 (December): 531–535.
- Robertson-Steel, Iain. 2006. "Evolution of Triage Systems." *Emergency Medicine Journal* 23, no. 2 (February): 154–155.

- Rogers, Frederick B., Turner M. Osler, Steven R. Shackford, Paul L. Morrow, Kennith H. Sartorelli, Lorelei Camp, Mark A. Healey, and Frances Martin. 2001. "A Population-Based Study of Geriatric Trauma in a Rural State." *Journal of Trauma and Acute Care Surgery* 50, no. 4 (April): 604–609.
- Salazar, Mike and Matt Propp. 2018. "Ben-E-Keith Active Shooter Incident: November 12, 2018." Bernalillo County Fire Department, South Battalion.
- Sirbaugh, P., and S. Srinivasan. 2014 "Pediatric Considerations in Prehospital Care." Accessed March 18, 2019. *UpToDate*. https://sso.uptodate.com/contents/pediatric-considerations-in-prehospital-care.
- Sise, M. J., S. R. Shackford, J. C. Cruickshank, G. Murphy, and P. H. Fridlund. 1984. "Cricothyroidotomy for Long-Term Tracheal Access. A Prospective Analysis of Morbidity and Mortality in 76 Patients." *Annals of Surgery* 200, no. 1 (July): 13–17.
- Smith, E. Reed, and John B. Delaney. 2013. "Supporting Paradigm Change in EMS' Operational Medical Response to Active Shooter Events." *Journal of Emergency Medical Services* 38, no. 12 (December): 48–50, 52, 54–55.

 https://www.jems.com/articles/print/volume-38/issue-12/features/supporting-paradigm-change-in-ems-operational-medical-response-to-active-shooter-events.html.
- Smith, David P., Blaine L. Enderson, and Kimball I. Maull. 1990. "Trauma in the Elderly: Determinants of Outcome." *Southern Medical Journal* 83, no. 2 (February): 171–177.
- Smith, E. Reed, and John B. Delaney. 2013. "Supporting Paradigm Change in EMS' Operational Medical Response to Active Shooter Events." *Journal of Emergency Medical Services* 38, no. 12 (December). https://www.jems.com/articles/print/volume-38/issue-12/features/supporting-paradigm-change-in-ems-operational-medical-response-to-active-shooter-events.html.
- Stein, Michael, and Asher Hirshberg. 1999. "Medical Consequences of Terrorism. The Conventional Weapon Threat." *Surgical Clinics of North America* 79, no. 6 (December): 1537–1552.
- Sterling, Daniel A., Judith A. O'connor, and John Bonadies. 2001. "Geriatric Falls: Injury Severity is High and Disproportionate to Mechanism." *Journal of Trauma and Acute Care Surgery* 50, no. 1 (January):116–119.
- Taylor, David M., Gill M. Vater, and Paul J. Parker. 2011. "An Evaluation of Two Tourniquet Systems for the Control of Prehospital Lower Limb Hemorrhage." *Journal of Trauma: Injury, Infection, and Critical Care* 71, no. 3 (September): 591–595. https://pdfs.semanticscholar.org/bd36/c1a043c9c79834768189cfd35514fb1ed263.pdf?ga=2.116348545.647210041.1548169741-293918687.1547846733.

- Teixeira, Pedro G. R., Carlos V. R. Brown, Brent Emigh, Michael Long, Michael Forman, Brian Eastridge, Stephen Gale, Michael S. Truitt, Sharmila Dissanaike, Therese Duane, John Holcomb, Alex Eastman, and Justin Regner. 2018. "Civilian Prehospital Tourniquet Use Is Associated with Improved Survival in Patients with Peripheral Vascular Injury." *Journal of the American College of Surgeons* 226, no. 5 (May): 769–776.
- Tinetti, Mary E., and Mark Speechley. 1989. "Prevention of Falls Among the Elderly." *New England Journal of Medicine* 320, no. 16 (April): 1055–1059.
- Vretis, James G. n.d. *Tourniquets Outside the Goldilocks Zone*. Committee for Tactical Emergency Casualty Care. http://c-tecc.org/images/Goldilocks-min.pdf.
- Wall, Piper L., John D. Welander, Amarpreet Singh, Richard A. Sidwell, and Charisse M. Buising. 2012. "Stretch and Wrap Style Tourniquet Effectiveness with Minimal Training." *Military Medicine* 177, no. 11 (November 1): 1366–1373. https://doi.org/10.7205/MILMED-D-12-00150.
- Weymuller Jr, Ernest A., Donald Paugh, Edward G. Pavlin, and Charles W. Cummings. 1987. "Management of Difficult Airway Problems with Percutaneous Transtracheal Ventilation." Annals of Otology, Rhinology & Laryngology 96, no. 1 (January–February): 34–37.
- Wightman, John M., and Sheri L. Gladish. 2001. "Explosions and Blast Injuries." *Annals of Emergency Medicine* 37, no. 6 (June): 664–678.
- Zerah, Francoise, Alain Harf, Leon Perlemuter, Hubert Lorino, Anne-Marie Lorino, and Guy Atlan. 1993 "Effects of Obesity on Respiratory Resistance." *Chest* 103, no. 5 (May): 1470–1476.

Evaluation Strategy

Participants are required to complete a course evaluation at the end of the course, which focuses on the following issues:

- Value of materials in supporting the course goal and module objectives
- Effectiveness of instruction (instructors presented content in an understandable manner, used relevant examples, encouraged participation, and answered questions in a clear and concise manner)
- Relevance of instruction to each participant's assessment of real-world requirements and concerns

Course Structure/Content Outline

Module 1: Course Overview

- Welcome
- Introductions
- Registration Form
- Testing
- Course Overview
- Scope of Course
- What is an Active Threat?
- Response Timeline Compared to Attack Duration
- A Recent Active Threat Case Study

Module 2: On-Scene Coordination

- Introduction to Integrated Response
- National Incident Management System (NIMS) and Incident Command
- The Importance of Staging
- Creating a Staging Log

Module 3: Tactical Response Considerations and Rescue Task Force Integration

- Law Enforcement First Responder Considerations
- Tactical Principles and Priorities
- Rescue Task Force Team Considerations
- Establishing and Managing a Casualty Collection Point (CCP)
- Establishing an Ambulance Exchange Point (AEP)
- Rescue Task Force Practical Exercises

Module 4: Direct Threat Care

- Development of Tactical Emergency Casualty Care (TECC)
- Priorities in the Direct Threat Care Environment
- Hemorrhage Control
- Airway Management

Module 5: Indirect Threat Care

- Disclaimer: Medical Procedures
- Improving Survival of Active threat Victims
- Considerations for Vulnerable Populations
- Assessment and Treatment of Life-Threatening Injuries
- Lifesaving Interventions
- Special Considerations in Indirect Threat Care
- Reassessment, Secondary Assessment, and Treatment
- Indirect Threat Care Practical Exercises

Module 6A: Advanced Medical Skills for Fire and Emergency Medical Services

- Disclaimer: Medical Procedures
- The Lethal Triad
- Hemorrhage
- Difficult Airway
- Needle Decompression of Tension Pneumothorax
- Advanced Concepts
- Advanced Medical Practical Exercises

Module 6B: Basic Medical Skills for Fire and Emergency Medical Services

- Disclaimer: Medical Procedures
- The Lethal Triad
- Hemorrhage
- Shock
- Overlapping Threats: Facial and Traumatic Airway Injuries
- Difficult Airway
- Chest Injuries
- Basic Medical Practical Exercises

Module 6C: Tactical Skills Review for Law Enforcement

- Introduction to Tactical Movement
- Weapons Safety
- Principles of Movement to Contact
- Team Movement to Contact
- Decisive Movement
- Threat Engagement
- Combat Clearing
- Room Entry
- Tactical Concerns When Processing a Room
- Tactical Skills Practical Exercises

Module 7: Patient Management Practical Exercises

- Patient Management Practical Exercises
- Activity 7.1: Improvised Tourniquet Station
- Activity 7.2: Buddy Care Management Station
- Activity 7.3: Patient Management Station
- Day 3 Participant Preparations

Module 8: Integrated Response Practical Exercises

- Train to Save Lives
- Practical Exercises
- Equipment Turn-In and Recovery

Module 9: Testing and Evaluation

- Introduction
- Course Conclusion
- Post-Test
- Course Evaluation

Course Design Matrix

Module 1: Course Overview

Scope Statement

Participants and instructors introduce themselves by engaging in a brief opening activity. Participants complete a registration form and a pre-test. The pre-test is a self-scored assessment designed to assist participants in determining their level of knowledge regarding the course material before the course begins. Instructors introduce the course modules by name and briefly describe the primary focus of each module.

Terminal Learning Objective

By the end of this module, participants will be able to explain the need for responders and their agencies to prepare for an active threat incident before it occurs.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 1-1 Identify the characteristics of an active threat incident.
- 1-2 Assess average response times to active threat incidents.
- 1-3 Identify challenges and successes in a recent notable active threat incident.

Lesson Topics

Welcome, Introductions, Registration Form, Testing, Course Overview, Scope of Course, What is an Active Threat?, Response Timeline Compared to Attack Duration, and A Recent Active Threat Case Study

Instructional Strategy

Lecture, Pre-Test

Assessment Strategy

- Instructor observation of participants' involvement in the classroom discussion
- Instructor-led discussion to ensure participants understand how instructors will evaluate performance
- Instructor administration of a pre-test to assess participants' current knowledge of course materials

Practical Exercise Statement

Not applicable

Module 2: On-Scene Coordination

Scope Statement

In this module, instructors demonstrate how components of an integrated response, the National Incident Management System (NIMS), effective span-of-control, and effective scene management techniques and procedures positively affect the overall response to an active threat incident.

Terminal Learning Objective

By the end of this module, participants will be able to describe an integrated command structure, especially as it relates to staging and how to function as a Staging Area Manager in an active threat integrated response.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 2-1 Describe the importance of integrated response.
- 2-2 Describe National Incident Management System (NIMS) organizational structures as they relate to active threat incidents.
- 2-3 Describe Incident Command System (ICS) position responsibilities.
- 2-4 Maintain a system of accountability to manage resources during an integrated response.

Lesson Topics

Introduction to Integrated Response, National Incident Management System (NIMS) and Incident Command, The Importance of Staging, and Creating a Staging Log

Instructional Strategy

Lecture, Participant Activity, Group Exercise, Video, Case Studies

Assessment Strategy

- Observation of participants' involvement in the classroom discussion
- Observation of participants' performance during activities
- Interactive discussion with participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

Not applicable

Module 3: Tactical Response Considerations and Rescue Task Force Integration

Scope Statement

In this module, instructors introduce the fundamental principles of rescue task force formation and deployment. Instructors demonstrate and then coach participants through the formation and functions of a rescue task force. Participants also engage in a tabletop exercise that allows them to see how all parts of the integrated response model function together during an active threat.

Terminal Learning Objective

By the end of this module, participants will be able to use tactical principles to form and move with a rescue task force for a swift, integrated response by law enforcement, fire, and emergency medical services.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 3-1 Describe law enforcement responder considerations in an active threat environment.
- 3-2 Prioritize contact team tasks according to sound tactical principles.
- 3-3 Describe rescue task force team considerations in an active threat environment.
- 3-4 Describe priorities for establishing and managing a casualty collection point.
- 3-5 Choose a sound location for an ambulance exchange point.

Lesson Topics

Law Enforcement First Responder Considerations, Tactical Principles and Priorities, Rescue Task Force Team Considerations, Establishing and Managing a Casualty Collection Point (CCP), Establishing an Ambulance Exchange Point (AEP), and Rescue Task Force Practical Exercises

Instructional Strategy

Lecture, Demonstration, Practical Exercise, Group Exercise

Assessment Strategy

- Observation of participants' involvement in the classroom discussion
- Observation of participants' performance during practical exercises
- Interactive questioning of participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

Participants will engage in a table-top based simulated active threat incident to practice incident management. Instructors will demonstrate and practical techniques for rescue task force formation and movement, casualty collection point (CCP) management, and ambulance exchange point (AEP) management. Participants will then practice the same techniques.

Module 4: Direct Threat Care

Scope Statement

Participants are introduced to direct threat care, and the priorities for the potential caregiver and casualty during this phase. This module addresses critical lifesaving interventions that caregivers and casualties can use while under hostile fire.

Terminal Learning Objective

By the end of this module, participants will be able to identify appropriate lifesaving techniques that can be used in a direct threat environment.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 4-1 Describe law enforcement priorities in the direct threat care environment according to tactical emergency casualty care principles.
- 4-2 Explain the effectiveness of tourniquets in a direct threat care environment.
- 4-3 Demonstrate the proper application and use of a Combat Application Tourniquet (CAT) with both one- and two-handed deployment.
- 4-4 Manage a potentially life-threatening hemorrhage.
- 4-5 Demonstrate the recovery position for airway management.

Lesson Topics

Development of Tactical Emergency Casualty Care (TECC), Priorities in the Direct Threat Care Environment, Hemorrhage Control, and Airway Management

Instructional Strategy

Lecture, Demonstration, Participant Activity, Group Exercise, Video, Case Studies

Assessment Strategy

- Observation of participants' involvement in the classroom discussion
- Observation of participant performance during practical exercises
- Interactive questioning of participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

Participants will practice applying a tourniquet to themselves and to other participants under a variety of circumstances.

Module 5: Indirect Threat Care

Scope Statement

Instructors discuss and then demonstrate medical skills to render lifesaving medical care once a casualty and responders are no longer under direct hostile fire, but potential threats remain.

Terminal Learning Objective

By the end of this module, participants will be able to identify appropriate lifesaving techniques that can be used in an indirect threat environment.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 5-1 Explain how indirect threat care improves the survival of active threat victims.
- 5-2 Identify special considerations for vulnerable populations.
- 5-3 Employ BATH techniques to rapidly assess and treat trauma injuries.
- 5-4 Employ interventions to control bleeding.
- 5-5 Describe the importance of reassessment and secondary assessment of casualties.

Lesson Topics

Improving Survival of Active threat Victims, Considerations for Vulnerable Populations, Assessment and Treatment of Life-Threatening Injuries, Lifesaving Interventions, Special Considerations for Indirect Threat Care, Reassessment, Secondary Assessment, and Treatment, and Indirect Threat Care Practical Exercises

Instructional Strategy

Lecture, Demonstration, Participant Activity, Practical Exercise, Group Exercise, Video, Case Studies

Assessment Strategy

- Observation of participants' involvement in the classroom discussion
- Observation of participants' performance during practical exercises
- Interactive questioning of participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

Participants observe and then practice wound packing, the use of pressure points, and effective bandaging in three stations. Instructors provide constructive correction to participants during the practical exercises to ensure competency.

Module 6A: Advanced Medical Skills for Fire and EMS

Scope Statement

Certified medical provider (medical first responder or higher) participants will examine and then practice specific medical techniques to augment existing skills to match the demands of responding to an active threat incident.

Terminal Learning Objective

By the end of this module, certified medical provider participants will be able to demonstrate advanced medical skills appropriate to an indirect threat care environment.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 6A-1 Identify conditions of the lethal triad in trauma resuscitation.
- 6A-2 Describe advanced methods of hemorrhage control.
- 6A-3 Describe difficult airway circumstances that may necessitate cricothyroidotomy procedure.
- 6A-4 Describe an advanced technique for treating tension pneumothorax.
- 6A-5 Demonstrate proper technique for pre-hospital needle chest decompression.
- 6A-6 Demonstrate proper technique for pre-hospital needle and surgical cricothyroidotomy.
- 6A-7 Demonstrate proper wound packing techniques and tourniquet application.

Lesson Topics

The Lethal Triad, Hemorrhage, Difficult Airway, Needle Decompression of Tension Pneumothorax, Advanced Concepts, and Advanced Medical Practical Exercises

Instructional Strategy

Lecture, Demonstration, Participant Activity, Practical Exercise, Group Exercise

Assessment Strategy

- Observation of participants' involvement in the classroom discussion
- Observation of participants' performance during practical exercises
- Interactive questioning of participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

Participants will practice techniques introduced by the lecture portion of the module. This includes needle decompression of a tension pneumothorax, techniques for both needle and surgical cricothyroidotomy, wound packing techniques that can be used on a junctional hemorrhage, and advanced tourniquet deployment.

Module 6B: Basic Medical Skills for Fire and Emergency Medical Services

Scope Statement

Basic medical provider participants will examine and then practice specific medical techniques to augment existing skills to match the demands of responding to an active threat incident.

Terminal Learning Objective

By the end of this module, basic medical provider participants will be able to demonstrate basic medical skills appropriate to an indirect threat care environment.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 6B-1 Identify conditions of the lethal triad in trauma resuscitation.
- 6B-2 Describe the effects and management of hemorrhage.
- 6B-3 Describe the stages, types, and management of shock.
- 6B-4 Describe symptoms and management of traumatic facial wounds that commonly occur in active threat incidents.
- 6B-5 Describe basic methods of managing a difficult airway.
- 6B-6 Provide assistance during needle cricothyroidotomy and emergency surgical cricothyroidotomy.
- 6B-7 Demonstrate BATH assessment, proper wound packing techniques, and tourniquet application

Lesson Topics

The Lethal Triad, Hemorrhage, Shock, Overlapping Threats: Facial and Traumatic Airway Injuries, Difficult Airway, Chest Injuries, Basic Medical Practical Exercises

Instructional Strategy

Lecture, Demonstration, Practical Exercise, Group Exercise

Assessment Strategy

- Observation of participant performance during practical exercises
- Observation of participants' performance during practical exercises
- Interactive questioning of participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

Participants will practice techniques introduced by the lecture portion of the module, including proper care of open wounds and wound packing techniques that can be used on a junctional hemorrhage, and advanced tourniquet deployment. Participants will also practice assisting a paramedic in establishing an advanced airway.

Module 6C: Tactical Skills Review for Law Enforcement

Scope Statement

Law enforcement participants review safe and effective tactical techniques that allow officers to operate safely within a team environment and among other first responders (such as fire and EMS). Participants also examine tactical principles that lead to suspect neutralization.

Terminal Learning Objective

By the end of this module, participants will be able to operate tactically in an active threat environment.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 6C-1 Respond tactically to stimulus, loss of stimulus, and lack of stimulus.
- 6C-2 Apply the principles of movement to contact as part of team movement.
- 6C-3 Move decisively and tactically as a solo officer or as part of a team.
- 6C-4 Evaluate a room safely and effectively using combat clearing techniques.

Lesson Topics

Introduction to Tactical Movement, Weapons Safety, Principles of Movement to Contact, Team Movement to Contact, Decisive Movement, Threat Engagement, Combat Clearing, Room Entry, Tactical Concerns When Processing a Room, and Tactical Skills Practical Exercises

Instructional Strategy

Lecture, Demonstration, Practical Exercise, Group Exercise, Video,

Assessment Strategy

- Observation of participant performance during practical exercises
- Interactive questioning of participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

Law enforcement participants will use movement-to-contact techniques to move towards a target location (in open and interior areas) and employ combat clearing techniques to obtain as much information as possible before entering a room or open area. They will effectively engage and neutralize an active threat suspect role player who is represented as actively killing individuals by gun or some other means. Participants will practice negotiating open and closed doors of rooms prior to a room entry, entering a room or open area and clearing it of threats, and engaging and neutralizing threats. They will discuss and practice effectively making a room entry, establishing points of dominance, taking control of the room by managing the occupants, and developing an ongoing tactical plan.

Module 7: Patient Management Practical Exercises

Scope Statement

Participants practice basic skills to render lifesaving medical care once a casualty is no longer under direct hostile fire, but potential threats remain.

Terminal Learning Objective

By the end of this module, participants will be able to employ appropriate lifesaving techniques that can be used in a direct or indirect threat environment.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 7-1 Recognize objects that may be successfully employed to build an improvised tourniquet.
- 7-2 Deploy a tourniquet under stressful conditions.
- 7-3 Conduct a rapid bleeding sweep.
- 7-4 Use the BATH assessment as part of a rescue task force (RTF).
- 7-5 Employ proper wound packing techniques in an indirect threat care environment.

Lesson Topics

Patient Management Practical Exercises, Improvised Tourniquet Station, Buddy Care Management Station, Patient Management Station, and Day 3 Participant Preparations

Instructional Strategy

Lecture, Practical Exercise, Group Exercise

Assessment Strategy

- Observation of participants' involvement in the classroom discussion
- Observation of participants' performance during practical exercises
- Interactive questioning of participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

Participants practice the BATH assessment, wound packing, and deployment of a commercial tourniquet as part of a simulated rescue task force. They also practice deploying a commercial tourniquet under stressful conditions and analyze everyday objects for use as components in creating an improvised tourniquet.

Module 8: Integrated Response Practical Exercises

Scope Statement

Participants employ tactics and skills taught previously in the course to successfully respond to simulated active threat incidents.

Terminal Learning Objective

By the end of this module, participants will be able to successfully integrate law enforcement, fire, and emergency medical services (EMS) into a unified response to an active threat.

Enabling Learning Objectives

By the end of this module, participants will be able to

- 8-1 Recognize an active threat (law enforcement).
- 8-2 Mitigate an ongoing deadly force threat (law enforcement).
- 8-3 Provide direct and indirect threat care to injured victims.
- 8-4 Manage casualty collection points (CCPs).
- 8-5 Integrate fire and EMS into warm zones using rescue task force (RTF) concepts.
- 8-6 Demonstrate advanced medical skills in an indirect threat care and evacuation care environment (certified medical personnel).
- 8-7 Evacuate injured victims from a crisis site using RTF concepts and principles.
- 8-8 Analyze actions taken in an active threat response to identify points of improvement.

Lesson Topics

Train to Save Lives, Practical Exercises, and Equipment Turn-In and Recovery

Instructional Strategy

Practical Exercise

Assessment Strategy

- Observation of participants' involvement in the classroom discussion
- Observation of participants' performance during practical exercises
- Interactive questioning of participants
- Solicitation of observations and opinions of objectives
- Instructor administration of a post-test to assess knowledge participants gained from each module

Practical Exercise Statement

During the practical exercises in this module, instructors will guide participants as they perform scripted, scenario-based exercises. Instructors will provide constructive critique and feedback to participants during the practical exercises to ensure competency.

During the functional exercise scenarios, participants will rotate through different response positions ranging from first responders to Incident Command staff positions. Dedicated role players provided by the host will portray both suspects and innocent victims during the scenarios. Instructors will use a roster to separate participants by discipline (police, fire, and EMS) and to ensure a balanced rotation of roles. All course participants will take part in each of the functional exercise scenarios.

Five scenario-based exercises will be conducted. Participants and role players will receive a detailed safety briefing. Instructors will conduct a thorough safety inspection of all participants prior to practical exercises. Once participants are in a secure, safe training site, instructors will issue equipment and assign roles to participants.

Module 9: Testing and Evaluation

Scope Statement

In this module, participants complete an objectives-based post-test. They must score a 70% or greater to receive a Certificate of Completion. Participants who do not achieve a passing score can re-test. (They may also request a Certificate of Attendance as documentation of class attendance.) Participants also complete a course evaluation form and provide feedback about the course instruction, content, and materials.

Terminal Learning Objective

In this module, participants will complete a comprehensive post-test and course evaluation.

Enabling Learning Objectives

In this module, participants will

- 9-1 Complete a comprehensive post-test with a score of 70% or greater.
- 9-2 Provide feedback by completing a course evaluation form.

Lesson Topics

Course Conclusion, Post-Test, and Course Evaluation

Instructional Strategy

Lecture, Post-Test, Course Evaluation

Assessment Strategy

 Instructor administration of a post-test to assess knowledge participants have gained from each module

Practical Exercise Statement

Not applicable

Course Agenda

Day 1

Module #	Module Title	Module Duration
Module 1	Course Overview	1.5 hours
Module 2	On-Scene Coordination	2.0 hours
Module 3	Tactical Response Considerations and Rescue Task Force Integration	3.0 hours
Module 4	Direct Threat Care	1.5 hours

Day 2

Module #	Module Title	Module Duration
Module 5	Indirect Threat Care	3.5 hours
Module 6A	Advanced Medical Skills for Fire and Emergency Medical Services	3.0 hours
Module 6B	Basic Medical Skills for Fire and Emergency Medical Services	3.0 hours
Module 6C	Tactical Skills Review for Law Enforcement	3.0 hours
Module 7	Patient Management Practical Exercises	1.5 hours

Day 3

Module #	Module Title	Module Duration
Module 8	Integrated Response Practical Exercises	7.0 hours
Module 9	Testing and Evaluation	1.0 hours