CMC
TCCC

COMBAT MEDIC/CORPSMAN
TACTICAL COMBAT CASUALTY CARE

COURSE PLAN:
A TEACHING GUIDE FOR TRAINERS

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Committee on
Tactical Combat
Casualty Care
(CoTCCC)

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I. COURSE OVERVIEW

This teaching guide provides information to help trainers successfully manage and teach the Tactical Combat Casualty Care (TCCC) Combat Medic/Corpsman (CMC) Course.

The proponent for the course is the Joint Trauma System (JTS), which is a part of the Defense Health Agency (DHA), located in Falls Church, Virginia. This is an unclassified course (security classification). The product is releasable to foreign countries and civilians. Therefore, the curriculum is being offered in the public domain to ensure maximum availability to military personnel, international partners, and the public.

This standardized curriculum is available in a digital format for trainers and students. Training materials and resources are available through a DHA-sponsored training platform called Deployed Medicine (DM). DM is accessible through your personal computer or mobile device. Trainers may access the official materials at www.deployedmedicine.com, and through the free DM mobile app for iOS and Android. Learning assets can be downloaded from the website in either a single or bundled training package. They may also be viewed and downloaded separately.

For questions regarding TCCC training standards or the TCCC-CMC course curriculum and its use, contact the Joint Trauma Education and Training Branch (JTET-B) at TCCC-CMC@deployedmedicine.com or dha.jbsa.j-3.list.jts-jtet@mail.mil.

PREREQUISITES

- **Trainers:**
  - Minimum passing CMC student course score of 80%
  - Currently TCCC Trained/Service Trainer
  - Completed Online Train-the-Trainer Course (JKO, NAEMT, etc.)
    NOTE: Trainers may be exempt per Service-specific standards (e.g., Basic Instructor Course (BIC) or equivalent)
  - Proctored Trainer/Grader Evaluation (Candidate teaches a course and is evaluated by a certified trainer)
  - Authorized to operate as a Training Site per Service-specific guidelines and standards

- **Students:**
  - **Initial training:** Meet individual Service members career track requirements in accordance with Service-specific standards

- **Refresher course:** Meet individual Service members career track requirements in accordance with Service-specific standards
- **Reserve and Guard members (Refresher) & Pre-deployment training:** Meet individual Service members career track requirements in accordance with Service-specific standards

COURSE DESCRIPTION

TCCC was created to teach evidence-based, lifesaving techniques, and strategies for providing the best trauma care on the battlefield. TCCC is broken into four courses:

- All Service Members (ASM) Course is intended to familiarize military personnel with TCCC concepts and basic lifesaving skills to ensure they are adequately prepared to render medical aid to a trauma casualty. Instruction includes basic hemorrhage control skills and recognition of more serious injuries.

- Combat Lifesaver (CLS) Course is intended to familiarize military personnel with TCCC principles, concepts, and critical skills to ensure they are adequately prepared to render medical aid to a trauma casualty. Instruction includes advanced skills needed to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems, as well as identification and treatment of other associated but not immediate life-threatening injuries.

- Combat Medic/Corpsman (CMC) Course is intended to equip CMCs to provide more advanced prehospital casualty care than was taught in the ASM or CLS courses. Instruction includes the use of advanced medical equipment and knowledge in the management of life-threatening injuries commonly encountered on the battlefield.

- Combat Paramedic Provider (CPP) Course is designed for advanced providers who are expected to provide the most sophisticated care to keep our wounded Service members alive and get them to definitive care.

The course begins with a classroom presentation followed by a series of interactive, hands-on skills training sessions containing 24 modules that aid in instructing students on various skills ranging from: bleeding control interventions and airway and respiratory management techniques to prevention and treatment of shock, burns, eye injuries, and splints. Additionally, students will learn various drag and carry skills as well as communication and documentation of casualty information. Finally, students will learn concepts and principals of setting up Casualty Collection Points (CCPs).

The academic instruction training is designed to be delivered within an approximate timeframe of 64 hours depending on several variables, such as target audience, class size, training equipment, and the number of trainers. CMC course length is based on three different ‘models’ specific to each student’s education/training requirements. The ‘models’ are initial training, refresher training, and Reserve/Guard (refresher) & pre-deployment training. The final portion of training is devoted to assessment, which can take up to eight

hours. Based on the sample Course Map, the trainers can provide additional time for the students to practice at the various skills stations. The length of time at the skills stations may vary based on many factors including time, difficulty of skill, and organization of skill groupings, if applicable.

Adequate training space must be provided to accommodate hands-on TCCC skills training. Optimal conditions would allow enough room for students to break out into multiple small groups to practice skills with access to training aids.

Safety is critical in any training environment. Although, this course has a varying range of risks for hazards, safety conditions should be assessed locally and appropriate controls established. Every precaution should be taken during training to ensure student safety. Safety is everyone's responsibility; recognize, mitigate, and report hazardous conditions.

After a supervised skill rehearsal, students should be formally evaluated using the Skills Assessment Checklist (an Individual Skills Assessment and a Tactical Trauma Assessment (TTA)). After the skills assessment, trainers will provide a written examination. Subsequently, the students will receive a brief Course Critique consisting of basic questions (with Likert responses and several open-ended response questions to share personal feedback about the course along with future course recommendations).

TRAINER RESPONSIBILITIES

As a trainer, it is your responsibility to meet these requirements:

- Complete the trainer prerequisites.
- Experienced TCCC trainers may be exempt from this requirement based on Service-specific standards.
- Consistently demonstrate TCCC subject matter knowledge, confidence, and competence in performing and assessing TCCC skills.
- Familiar with the course plan, training materials, medical supplies, and equipment before course commencement.
- Teach using the standardized curriculum and staying up-to-date on the current TCCC Guidelines approved by the Committee on Tactical Combat Casualty Care (CoTCCC) and JTS.
- Accurately assess student abilities to achieve competency in the various skill requirements.

II. COURSE FOUNDATION AND DESIGN

The TCCC-CMC curriculum features a student-centered approach. The training methods and materials are uniquely designed to accommodate a variety of learning styles and preferences, while also ensuring learning objectives are met efficiently and effectively. In particular, the use of multimedia training content and technology are key parts of the learning strategy.

Overall training goals are to ensure students:

- Understand and value the importance of lifesaving skills and their role in helping eliminate preventable deaths due to trauma, ensuring military readiness and mission success.
- Recognize and perform lifesaving skills in a combat / noncombat environment in accordance with the Committee on Tactical Combat Casualty Care (CoTCCC) Guidelines.
- Can perform lifesaving skills at a Service-specific training standard proficiency level.

Trainers must take time to learn about each training audience. Trainers should provide a supportive and collaborative setting to enrich the hands-on learning experience and provide reassurance and coaching to improve learner confidence. Positive reinforcement is the key to ensuring student success.

The course is primarily focused on skills training, with the majority of training time allotted to interactive, hands-on learning. The curriculum is based on a foundation of learning objectives. A Terminal Learning Objective (TLO) or end goal is supported by a set of Enabling Learning Objectives (ELOs). Based on local training requirements, Services/units can add more TLOs/ELOs.

Core Modules/Lesson Plans

#	LESSON NUMBER	LESSON TITLE
01	TCCC-CMC: 1	Principles and Application of Tactical Combat Casualty Care
02	TCCC-CMC: 2	Medical Equipment
03	TCCC-CMC: 3	Care Under Fire
04	TCCC-CMC: 4	Principles and Application of Tactical Field Care
05	TCCC-CMC: 5	Tactical Trauma Assessment
06	TCCC-CMC: 6	Massive Hemorrhage Control in Tactical Field Care
07	TCCC-CMC: 7	Airway Management in Tactical Field Care
08	TCCC-CMC: 8	Respiration Assessment and Management in Tactical Field Care
09	TCCC-CMC: 9	Circulation/Hemorrhage Control in Tactical Field Care
10	TCCC-CMC: 10	Shock Recognition and Management
11	TCCC-CMC: 11	Hemorrhagic Shock Fluid Resuscitation in Tactical Field Care
12	TCCC-CMC: 12	Hypothermia Prevention and Treatment
13	TCCC-CMC: 13	Head Injuries
14	TCCC-CMC: 14	Eye Injuries
15	TCCC-CMC: 15	Pain Medications (Analgesia)
16	TCCC-CMC: 16	Antibiotic Administration
17	TCCC-CMC: 17	Wound Management
18	TCCC-CMC: 18	Burns

19	TCCC-CMC: 19	Fractures
20	TCCC-CMC: 20	Casualty Monitoring
21	TCCC-CMC: 21	Communication
22	TCCC-CMC: 22	Cardiopulmonary Resuscitation in Tactical Field Care
23	TCCC-CMC: 23	Documentation
24	TCCC-CMC: 24	Prepare for Evacuation

LEARNING OBJECTIVES

The course is built on a foundation of learning objectives. It includes 27 Terminal Learning Objectives (TLOs), supported by a set of 178 Enabling Learning Objectives (ELOs).

LEARNING OBJECTIVES (LOs): (27 Terminal LOs, 178 Enabling LOs)

MODULE 1: PRINCIPLES AND APPLICATION OF TACTICAL COMBAT CASUALTY CARE	
TLO	**ELO (1)**
01 Given a combat or noncombat scenario, perform Tactical Combat Casualty Care (TCCC) in accordance with the Committee on Tactical Combat Casualty Care (CoTCCC) Guidelines.	**1.1** Demonstrate the application of TCCC skills in a combat or noncombat scenario. (Comprehensive Module Practical Exercise)
TLO	**ELO (9)**
02 Describe the practice of TCCC in accordance with CoTCCC Guidelines.	**2.1** Identify the leading causes of preventable death due to traumatic injuries and the corresponding interventions to help increase chances of survival. (ASM T1:E1) **2.2** Describe the TCCC Phases of Care and how intervention priorities differ in each phase, in accordance with CoTCCC Guidelines. (CLS T2:E3) **2.3** Describe the application of TCCC in combat and noncombat settings across different environments. (CLS T2:E4) **2.4** Describe the role and responsibilities of all non-medical and medical personnel in rendering TCCC care in accordance with Joint Publication 4-02 and DoDI 1322.24. **2.5** Identify the key factors influencing TCCC. (CLS T2:E6) **2.6** Identify the importance of TCCC training. (CLS T2:E7) **2.7** Identify the three objectives (or goals) of TCCC. (CLS T2:E8) **2.8** Identify the lifesaving impacts of TCCC implementation in prehospital trauma care. **2.9** Identify methods used to stay current and up to date with TCCC Guidelines and protocols.

MODULE 2: MEDICAL EQUIPMENT	
TLO	**ELO (7)**
03 Describe the use of individual medical equipment components in accordance with CoTCCC Guidelines.	**3.1** Describe the use of a first aid kit in accordance with Service policy. (ASM T2) **3.2** Identify the contents of an individual Joint First Aid Kit (JFAK), and/or other Service-specific first aid kits. (ASM T2:E6)

	3.3 Describe the general maintenance and resupply procedures for trauma materials in a first aid kit in accordance with Service guidelines. (ASM T2:E7) **3.4** Identify the contents of a combat lifesaver kit and/or other Service-specific first aid kits. (CLS T3:E12) **3.5** Describe the use of components of a combat lifesaver kit in accordance with Service policy. (CLS T3:E13) **3.6** Identify the contents of a medic/corpsman aid bag and/or other Service-specific first aid kits. **3.7** Describe the use of a medic/corpsman aid bag, in accordance with Service policy.

MODULE 3: CARE UNDER FIRE	
TLO	**ELO (9)**
04 Given a combat or noncombat scenario, perform Care Under Fire in accordance with CoTCCC Guidelines.	**4.1** Describe the role of fire superiority and threat containment and the impact of tactical environment on Tactical Combat Casualty Care. (CLS T4:E14) **4.2** Describe the actions required before engaging with a casualty to prevent harm or additional casualties in accordance with CoTCCC Guidelines. (ASM T3:E8) **4.3** Identify appropriate actions and priorities to treat and move casualties in Care Under Fire. (CLS T4:E16) **4.4** Identify the importance of early application of limb tourniquets to control life-threatening bleeding. (CLS T4:E17) **4.5** Demonstrate one-handed tourniquet application to self in Care Under Fire. (CLS T4:E18) **4.6** Demonstrate two-handed tourniquet application to a casualty in Care Under Fire. (CLS T4:E19) **4.7** Describe the principles, advantages, and disadvantages of the one-person drag/carry or two-person drag/carry of a casualty in Care Under Fire. (CLS T4:E20) **4.8** Demonstrate the one-person drags and carries of a casualty in Care Under Fire. (CLS T4:E21) **4.9** Demonstrate the two-person drags and carries of a casualty in Care Under Fire. (CLS T4:E22)

MODULE 4: PRINCIPLES AND APPLICATION OF TACTICAL FIELD CARE	
TLO	**ELO (7)**
05 Given a combat or noncombat scenario, perform Tactical Field Care in accordance with CoTCCC Guidelines.	**5.1** Identify the importance of security and safety in Tactical Field Care. (CLS T5:E23) **5.2** Identify basic principles of removal/extraction of casualties from a unit-specific platform. (CLS T5:E24)

	5.3 Identify the importance and techniques of communicating casualty information with unit tactical leadership and/or medical personnel. (CLS T5:E25) **5.4** Identify the relevant tactical and casualty data involved in communicating casualty information. (CLS T5:E26) **5.5** Demonstrate communication of casualty information to tactical leadership and/or medical personnel (in accordance with Service and/or unit standard operating procedures in Tactical Field Care). (CLS T5:E27) **5.6** Identify triage considerations in Tactical Field Care. (CLS T5:E28) **5.7** Demonstrate the consolidation and triage of casualties in a casualty collection point.

MODULE 5: TACTICAL TRAUMA ASSESSMENT	
TLO	**ELO (8)**
06 Given a combat or noncombat scenario, perform a Tactical Trauma Assessment in accordance with CoTCCC Guidelines.	**6.1** Identify the common causes of altered mental status in combat or noncombat environments. (CLS T6:E30) **6.2** Demonstrate the techniques used to assess a casualty for responsiveness. (ASM T3:E9) **6.3** Identify the importance of disarming and securing the communications equipment of a casualty whose mental status is altered. (CLS T6:E31) **6.4** Identify the importance and techniques of communicating with a casualty in Tactical Field Care. (CLS T6:E32) **6.5** Demonstrate communicating with a casualty in Tactical Field Care. (CLS T6:E33) **6.6** Demonstrate applying body substance isolation in Tactical Field Care. (CLS T6:E34) **6.7** Demonstrate a Tactical Trauma Assessment in the proper order using the MARCH PAWS sequence in accordance with CoTCCC Guidelines. **6.8** Demonstrate the appropriate actions and interventions used in a casualty assessment to render aid to the casualty in accordance with CoTCCC Guidelines.

MODULE 6: MASSIVE HEMORRHAGE CONTROL IN TACTICAL FIELD CARE	
TLO	**ELO (14)**
07 Given a combat or noncombat scenario, perform massive hemorrhage control during Tactical Field	**7.1** Identify life-threatening hemorrhage (bleeding). (CLS T7:E37) **7.2** Identify the importance of early application of limb tourniquets to control life-threatening bleeding in Tactical Field Care. **7.3** Identify anatomical sites for applying direct and indirect pressure to control bleeding. (CLS T7:E39)

Care in accordance with CoTCCC Guidelines.	**7.4** Identify risks associated with applying an improvised limb tourniquet. (CLS T7:E41) **7.5** Demonstrate an evaluation of previously applied tourniquets for hemorrhage control effectiveness. (CLS T7:E43) **7.6** Demonstrate the appropriate application of a CoTCCC-recommended limb tourniquet. **7.7** Demonstrate the application of an improvised limb tourniquet. **7.8** Identify the principles of wound packing and applying pressure bandages. **7.9** Demonstrate the application of a CoTCCC-recommended hemostatic dressing. **7.10** Demonstrate wound packing and applying a pressure bandage. **7.11** Demonstrate improvised junctional hemorrhage control with hemostatic dressing and direct pressure. **7.12** Demonstrate the application of a CoTCCC-recommended junctional tourniquet. **7.13** Demonstrate the application of an injectable hemostatic agent. **7.14** Demonstrate the application of a wound closure device.

MODULE 7: AIRWAY MANAGEMENT IN TACTICAL FIELD CARE	
TLO	**ELO (16)**
08 Given a combat or noncombat scenario, perform airway management during Tactical Field Care in accordance with CoTCCC Guidelines.	**8.1** Identify signs of an airway obstruction. (ASM T5:E20) **8.2** Identify spinal immobilization considerations for casualties with suspected cervical spine injuries. **8.3** Describe the progressive strategies for airway management and the indications, contraindications, and limitations of airway management techniques in Tactical Field Care. **8.4** Demonstrate the placement of a casualty in the recovery position in Tactical Field Care. (CLS T8:E47) **8.5** Demonstrate opening the airway with the head-tilt/chin-lift or jaw-thrust maneuver. (CLS T8:E46) **8.6** Demonstrate the insertion of a nasopharyngeal airway in a casualty in Tactical Field Care. (CLS T8:E48) **8.7** Demonstrate suctioning the airway of a casualty with a Manual Suction Unit. **8.8** Demonstrate suctioning the airway of a casualty with a Mechanical Suction Unit. **8.9** Demonstrate the insertion of a CoTCCC-recommended extraglottic airway in a trauma casualty in Tactical Field Care.

	8.10 Identify the indications, contraindications, and techniques for performing cricothyroidotomy in Tactical Field Care. **8.11** Identify the indications, contraindications, and administration methods of lidocaine as a local anesthesia when performing a cricothyroidotomy in Tactical Field Care. **8.12** Demonstrate the procedures for performing a cricothyroidotomy in Tactical Field Care. **8.13** Describe the technique for ventilating a casualty with a bag valve mask (BVM) in Tactical Field Care. **8.14** Demonstrate ventilating a casualty with a BVM in Tactical Field Care. **8.15** Identify the considerations, indications, and limitations for oxygen administration in Tactical Field Care. **8.16** Identify the importance, considerations, limitations, and application of pulse oximetry monitoring in Tactical Field Care.

MODULE 8: RESPIRATION ASSESSMENT AND MANAGEMENT IN TACTICAL FIELD CARE	
TLO	**ELO (9)**
09 Given a combat or noncombat scenario, perform assessment and management of respiration and chest trauma during Tactical Field Care in accordance with CoTCCC Guidelines.	**9.1** Identify the signs and symptoms of respiratory distress. (ASM T5:E23) **9.2** Identify the signs and symptoms of a life-threatening chest injury. (ASM T5:E24) **9.3** Identify the signs and symptoms of open pneumothorax (sucking chest wound) in Tactical Field Care. (CLS T9:E52) **9.4** Identify the importance and implications of vented and non-vented chest seals. (CLS T9:E53) **9.5** Demonstrate the application of a chest seal to an open chest wound. (CLS T9:E54) **9.6** Identify the signs, symptoms, and initial treatment of tension pneumothorax in Tactical Field Care. (CLS T9:E55) **9.7** Demonstrate a needle decompression of the chest at the second intercostal space in the midclavicular line. (CLS T9:E56) **9.8** Demonstrate a needle decompression of the chest at the fifth intercostal space in the anterior axillary line. (CLS T9:E57) **9.9** Identify the signs of recurring or unsuccessful treatment of tension pneumothorax. (CLS T9:E58)

MODULE 9: CIRCULATION HEMORRHAGE CONTROL IN TACTICAL FIELD CARE	
TLO	**ELO (11)**
10 Given a combat or noncombat scenario, perform hemorrhage control during Tactical Field Care in accordance with CoTCCC Guidelines.	**10.1** Identify the signs, symptoms, and considerations of a pelvic fracture. **10.2** Identify the indications, contraindications, and application methods of pelvic compression devices in Tactical Field Care. **10.3** Demonstrate the application of a CoTCCC-recommended pelvic compression device in Tactical Field Care. **10.4** Demonstrate the application of an improvised pelvic compression device in Tactical Field Care. **10.5** Identify progressive strategies, indications, and limitations of controlling external hemorrhage in Tactical Field Care. **10.6** Identify the indications and methods of tourniquet replacement in Tactical Field Care. **10.7** Identify the indications and methods of tourniquet conversion in Tactical Field Care. **10.8** Demonstrate limb tourniquet replacement in Tactical Field Care. **10.9** Demonstrate limb tourniquet conversion in Tactical Field Care. **10.10** Identify the principles of wound packing and applying a pressure bandage. **10.11** Demonstrate wound packing and applying a pressure bandage.

MODULE 10: SHOCK RECOGNITION AND MANAGEMENT	
TLO	**ELO (4)**
11 Describe shock assessment in Tactical Field Care in accordance with CoTCCC Guidelines.	**11.1** Identify the signs, symptoms, and management steps of hemorrhagic shock in a trauma casualty. **11.2** Identify the importance of level of consciousness and radial pulse as indicators of hemorrhagic shock in Tactical Field Care. **11.3** Describe the lethal triad of hemorrhagic shock and identify preventive measures. **11.4** Identify signs, symptoms, and potential causes of refractory shock in Tactical Field Care.

TLO	ELO (4)
12 Given a combat or noncombat scenario, perform intravenous or intraosseous access on a trauma casualty during Tactical Field Care in accordance with CoTCCC Guidelines.	**12.1** Identify the indications, contraindications, and preferred methods of intravenous access in Tactical Field Care. **12.2** Demonstrate the initiation of a field-ruggedized intravenous saline lock in Tactical Field Care. **12.3** Identify the indications, contraindications, and preferred methods of intraosseous access in Tactical Field Care. **12.4** Demonstrate the initiation of an intraosseous infusion in Tactical Field Care.
TLO	**ELO (2)**
13 Given a combat or noncombat scenario, perform tranexamic acid administration on a bleeding trauma casualty in accordance with CoTCCC Guidelines.	**13.1** Identify the TCCC indications, contraindications, and administration methods of tranexamic acid. **13.2** Demonstrate administration of tranexamic acid to a trauma casualty in Tactical Field Care.

MODULE 11: HEMORRHAGIC SHOCK FLUID RESUSCITATION IN TACTICAL FIELD CARE	
TLO	**ELO (9)**
14 Given a combat or noncombat scenario, perform fluid resuscitation as part of the management of hemorrhagic shock on a trauma casualty during Tactical Field Care in accordance with CoTCCC Guidelines.	**14.1** Identify progressive strategies, indications, and limitations of fluid resuscitation for hemorrhagic shock in Tactical Field Care. **14.2** Identify appropriate fluid resuscitation techniques to prevent or treat hemorrhagic shock in Tactical Field Care. **14.3** Identify the importance and advantages of early use of blood products in Tactical Field Care. **14.4** Identify the indications, contraindications, and administration methods of low-titer group O whole blood in Tactical Field Care. **14.5** Identify the considerations, indications, contraindications, and administration methods of fresh whole blood in Tactical Field Care. **14.6** Identify the indications, contraindications, and administration methods of plasma in Tactical Field Care. **14.7** Identify the indications, contraindications, and administration methods of packed red blood cells in Tactical Field Care. **14.8** Demonstrate administration of blood products to a trauma casualty in Tactical Field Care. a. EldonCard® b. Donor blood product collection c. Administration of blood products

	14.9 Identify the signs, symptoms, considerations, and treatment strategies of blood transfusion complications.

MODULE 12: HYPOTHERMIA PREVENTION AND TREATMENT	
TLO	**ELO (3)**
15 Given a combat or noncombat scenario, perform hypothermia prevention measures on a trauma casualty during Tactical Field Care and Tactical Evacuation Care in accordance with CoTCCC Guidelines.	**15.1** Identify the indications, progressive strategies, and limitations of active hypothermia prevention of a trauma casualty in Tactical Field Care. **15.2** Identify passive hypothermia prevention measures on a trauma casualty. (CLS T12:E67) **15.3** Demonstrate active and passive external warming hypothermia prevention and treatment measures on a trauma casualty.

MODULE 13: HEAD INJURIES	
TLO	**ELO (5)**
16 Identify a head injury in accordance with TCCC Guidelines.	**16.1** Identify external forces that can cause a head injury. **16.2** Identify signs and symptoms of a head injury. **16.3** Identify the indications for performing a Military Acute Concussive Evaluation 2 (MACE 2) for a casualty with a suspected head injury. **16.4** Identify the progressive strategies and constraints for management of a suspected head injury in Tactical Field Care. **16.5** Identify the signs and symptoms of impending cerebral herniation in Tactical Field Care.

MODULE 14: EYE INJURIES	
TLO	**ELO (3)**
17 Given a combat or noncombat scenario, perform assessment and initial treatment of penetrating eye trauma during Tactical Field Care in accordance with CoTCCC Guidelines.	**17.1** Identify basic care of an eye injury in accordance with CoTCCC Guidelines. **17.2** Demonstrate the application of a rigid eye shield to a trauma casualty in Tactical Field Care. (CLS T14:E52) **17.3** Demonstrate a rapid field test of visual acuity on a casualty with an eye injury.

MODULE 15: PAIN MEDICATIONS (ANALGESIA)	
TLO	**ELO (13)**
18 Given a combat or noncombat scenario, perform analgesia administration during Tactical Field Care in accordance with CoTCCC Guidelines.	**18.1** Identify the indications and considerations of analgesia approaches in Tactical Field Care. (CLS T15:E73) **18.2** Identify the indications, contraindications, and administration methods of pain medications (analgesia) in Tactical Field Care. (CLS T15:E75) **18.3** Describe the indications, contraindications, dosage, route, and administration methods of oral acetaminophen in Tactical Field Care. **18.4** Describe the indications, contraindications, dosage, route, and administration methods of oral meloxicam in Tactical Field Care. **18.5** Demonstrate the administration of a combat wound medication pack in Tactical Field Care. (CLS T15:E76) **18.6** Describe the indications, contraindications, dosage, route, and administration methods of ondansetron in Tactical Field Care. **18.7** Describe the indications, contraindications, dosage, route, and administration methods of oral transmucosal fentanyl citrate lozenges in Tactical Field Care. **18.8** Demonstrate the preparation and administration of a transmucosal medication in Tactical Field Care. **18.9** Describe the indications, contraindications, dosage, route, and administration methods of ketamine in Tactical Field Care. **18.10** Describe the indications, contraindications, dosage, route, and administration methods of naloxone in Tactical Field Care. **18.11** Demonstrate the preparation and administration of an intranasal medication in Tactical Field Care. **18.12** Demonstrate the preparation and administration of an intramuscular medication injection in Tactical Field Care. **18.13** Demonstrate the preparation and administration of an intravenous/intraosseous medication injection in Tactical Field Care.

MODULE 16: ANTIBIOTIC ADMINISTRATION	
TLO	**ELO (5)**
19 Given a combat or noncombat scenario, perform antibiotic administration during Tactical Field Care in	**19.1** Identify the evidence and considerations for early antibiotic administration in Tactical Field Care. **19.2** Identify the indications, contraindications, and administration methods of antibiotics in Tactical Field Care.

accordance with CoTCCC Guidelines.	**19.3** Describe the indications, contraindications, dosage, route, and administration methods of moxifloxacin in Tactical Field Care. **19.4** Describe the indications, contraindications, dosage, route, and administration methods of ertapenem Tactical Field Care. **19.5** Demonstrate the preparation and administration of CoTCCC-recommended antibiotics in Tactical Field Care.

MODULE 17: WOUND MANAGEMENT	
TLO	**ELO (2)**
20 Given a combat or noncombat scenario, perform assessment and initial management of wounds during Tactical Field Care in accordance with CoTCCC Guidelines.	**20.1** Identify wound management considerations in Tactical Field Care. **20.2** Demonstrate application of open abdominal, impalement, and amputation wound dressings in Tactical Field Care.

MODULE 18: BURNS	
TLO	**ELO (8)**
21 Given a combat or noncombat scenario, perform assessment and initial treatment of burns during Tactical Field Care in accordance with CoTCCC Guidelines.	**21.1** Identify the specific scene safety issues and actions required of a trauma casualty with burns before evaluation and care of the casualty. **21.2** Identify types and severity of burns in accordance with the conventional burn classification. **21.3** Identify how to estimate the body surface area burned using the Rule of Nines. **21.4** Identify the evidence supporting the indications, progressive strategies, and limitations for burn management in TFC. **21.5** Demonstrate the application of a dry dressing to a burn casualty in accordance with CoTCCC Guidelines. **21.6** Demonstrate techniques used to prevent heat loss in a severe burn casualty in accordance with CoTCCC Guidelines. **21.7** Describe burn fluid resuscitation in Tactical Field Care. **21.8** Identify the indications, contraindications, and administration methods of lactated Ringer's in Tactical Field Care.

MODULE 19: FRACTURES	
TLO	**ELO (3)**
22 Given a combat or noncombat scenario, perform assessment and initial treatment of fractures during Tactical Field Care in accordance with CoTCCC Guidelines.	**22.1** Identify signs of a suspected fracture. **22.2** Demonstrate the basic care of fractures in accordance with CoTCCC Guidelines. **22.3** Demonstrate proper splint application using a malleable rigid or improvised splint to a suspected fracture in Tactical Field Care.

MODULE 20: CASUALTY MONITORING	
TLO	**ELO (7)**
23 Given a combat or noncombat scenario, perform monitoring of a trauma casualty during Tactical Field Care in combat in accordance with CoTCCC Guidelines.	**23.1** Identify the methods and limitations of assessing level of consciousness, pulses, and respiratory rate in Tactical Field Care. **23.2** Identify methods for monitoring vital sign trends in Tactical Field Care. **23.3** Demonstrate assessment of level of consciousness and respirations on a trauma casualty in Tactical Field Care. **23.4** Demonstrate assessment of radial, femoral, pedal, and carotid pulses for rate, rhythm, and quality in Tactical Field Care. **23.5** Demonstrate assessment of pulse oximetry in Tactical Field Care. **23.6** Demonstrate electronic vital signs monitoring in Tactical Field Care. **23.7** Demonstrate assessment of end-tidal CO2 using a colorimetric device on a trauma casualty in Tactical Field Care.

MODULE 21: COMMUNICATION	
TLO	**ELO (4)**
24 Given a combat or noncombat scenario, perform communication during Tactical Field Care in accordance with CoTCCC Guidelines.	**24.1** Identify the importance of and techniques for communicating casualty information with evacuation assets and/or receiving facilities. **24.2** Identify the information requirements and format of an evacuation request. **24.3** Identify the recommended evacuation prioritization for combat casualties. **24.4** Demonstrate the communication of evacuation request information and modified medical information report requirements.

MODULE 22: CARDIOPULMONARY RESUSCITATION IN TACTICAL FIELD CARE	
TLO	**ELO (2)**
25 Describe cardiopulmonary resuscitation in Tactical Field Care.	**25.1** Identify the conditions of and considerations for cardiopulmonary resuscitation in Tactical Field Care. **25.2** Demonstrate bilateral needle decompression in Tactical Field Care.

MODULE 23: DOCUMENTATION	
TLO	**ELO (4)**
26 Given a combat or noncombat scenario, perform documentation of care during Tactical Field Care in accordance with CoTCCC Guidelines.	**26.1** Identify how to document casualty information on the DD Form 1380 TCCC Card and the proper placement of that card on the casualty, in accordance with DHA-PI 6040.01. **26.2** Demonstrate the proper documentation of care on a trauma casualty in Tactical Field Care. **26.3** Identify the importance and information considerations of a casualty After Action Report submission. **26.4** Demonstrate completion of an After Action Report.

MODULE 24: PREPARE FOR EVACUATION	
TLO	**ELO (9)**
27 Given a combat or noncombat scenario, prepare casualties for evacuation during	**27.1** Identify considerations and fundamental procedures for staging casualties for evacuation. **27.2** Identify the importance of pre-mission evacuation equipment preparation and rehearsals.

Tactical Field Care in accordance with CoTCCC Guidelines.	**27.3**	Identify considerations and precautions required for evacuating casualties with suspected spinal injuries.
	27.4	Identify critical actions and checks to prepare casualties for evacuation.
	27.5	Identify methods of litter selection and evacuation equipment in Tactical Field Care.
	27.6	Identify considerations for evacuating ambulatory/walking wounded casualties in Tactical Field Care.
	27.7	Demonstrate the preparation of a casualty for evacuating in Tactical Field Care.
	27.8	Identify considerations in the transition of care during Tactical Evacuation Care.
	27.9	Identify the responsibilities of tactical force personnel in Tactical Evacuation Care.

NOTE: Learning objectives with a (ASM T#: E#), or a (CLS T#: E#) designation remain consistent with the Tactical Combat Casualty Care-All Service Members (TCCC-ASM) or the Tactical Combat Casualty Care-Combat Lifesaver (TCCC-CLS) course learning objectives.

III. GETTING STARTED: COURSE MANAGEMENT

The lead trainer should engage in a co-planning process with other trainers at least three weeks before the training event. To maintain the training standards established by JTS, each trainer must review the learning objectives and course materials (to include instructional videos) and begin acquiring and organizing medical supplies and equipment. Additionally, each trainer must review the curriculum and rehearse the skills and assessment techniques, independently and as a team, to ensure a consistent approach to training.

Here is the recommended five-step process to plan and organize the course:

- **STEP 1: Determine education/training requirements.** The course has been designed and should be considered to accommodate the training needs of three different target audiences.

  - **Option 1: Initial training:** This option was designed for the Combat Medic/Corpsman taking the course for the first time. Initial training includes instruction and assessment over the course of 8-10 days. For those receiving initial training and have been tasked to deployed it includes instruction and assessment over the course of 8 days.

  - **Option 2: Refresher course:** This option was designed to teach/reinforce the knowledge, skills, and abilities of active duty Combat Medics/Corpsmen during their training cycle. It includes instruction and assessment over the course of 5 days.

  - **Option 3: Reserve and Guard members (Refresher) & Pre-deployment training:** This option was designed to teach/reinforce the knowledge, skills,

and abilities of Reserve and Guard Combat Medics/Corpsmen and for those individuals who have been tasked to deploy, with time/availability limitations taken into account. The Refresher/Pre-deployment training includes instruction and assessment over the course of 5-8 days. The Reserve/Guard member initial training includes instruction and assessment over the course of 8 days. The Reserve/Guard member refresher training includes instruction and assessment over the course of 5 days.

- **STEP 2: Formulate a course plan.** The course has been designed in a modular fashion, allowing flexibility in course design. Some training environments will dictate an established approach, with limited opportunities to be creative with the course design and flow. Figure 1 provides a few options to consider.

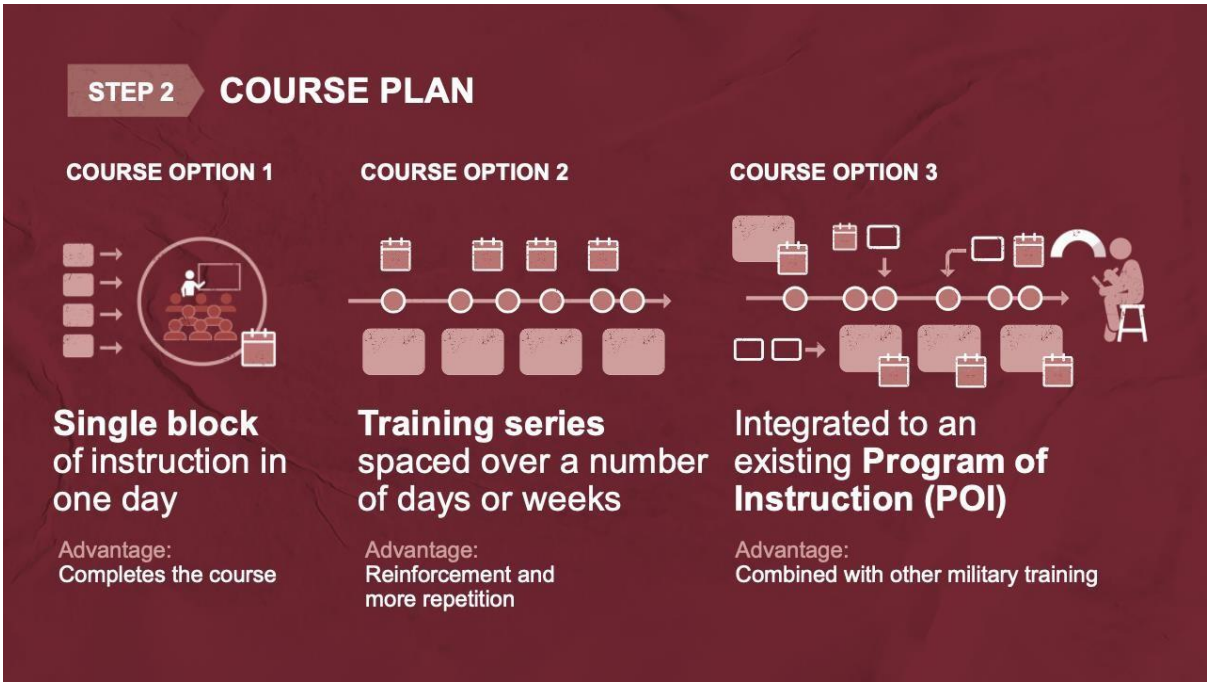

Figure 1: Course Design Options

- **Option 1: Offer the course in a traditional format as a single block of instruction** over 8 days (~57 hours of instruction and ~8 hours of assessment), depending on class size and number of trainers. This approach is common and is more typical of a standard course layout. In Appendix B, a recommended course map is offered as a "best practice" for trainers to follow.

- **Option 2: Deliver the training in a series of activities spaced over multiple days or weeks.** This approach is called spaced learning. It makes sense only if you can sustain the *same* group of students over a certain period of time and can track and manage numerous training events. This format can have several advantages, such as reinforcing learning and performing additional repetitions of skills. This method may also be used as a unit-level sustainment training platform in a garrison, field, or deployed setting.

- **Option 3: Integrate this training into an existing curriculum or course.** Module plans and assessments can be folded into a program of instruction. This makes the most sense where this medical training is combined with other military training, for example, basic combat training or service-school environment.

Each of these approaches requires varying levels of time and resources. So, choose whatever best suits your unit's needs and training process.

- **STEP 3: Determine your course configuration and appropriate trainer/student ratios.** Trainers should organize and plan each phase of the training. The number of trainers, overall class size, and training environment play a major role in arranging the course and using trainer resources. **Trainer/student ratios: The recommended trainer-to-student ratio for teaching and assessing TCCC skills is 1:6–8 (one trainer per six to eight students).**

  Larger class sizes are commonplace in a schoolhouse setting or pre-deployment scenario. Trainer-to-student ratios may be higher in these settings, as a fixed number of resources are available. However, there are ways to adjust the use of trainers throughout the training. Figure 2 provides an example of how to modify or flex ratios, should you choose to teach the course in a single block of instruction (with a class size of 50).

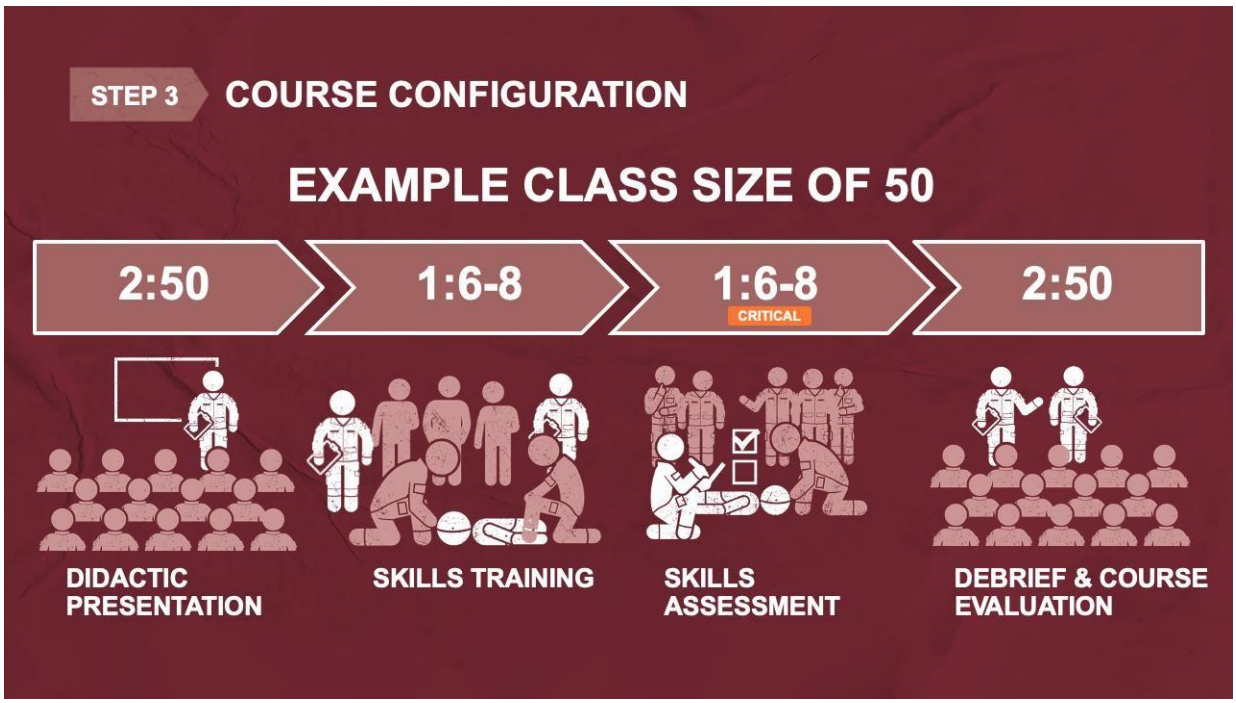

Figure 2: Trainer/student ratios for different phases of training

The trainer can start by training the entire student audience together in one classroom or auditorium for the introductory portion of the course. This can be done with a single lead trainer, with at least one other trainer to assist.

As the students move into smaller groups for skills training, more trainers may be needed. Feedback from trainers and students has highlighted improved learning effectiveness when the trainer-to-student ratio is 1:6–8. This allows for direct engagement, and trainers can actively lead skills training with individual coaching and supervision. When a limited number of trainers are available, consider relying heavily on using instructional videos and implementing peer-to-peer coaching during the skills training sessions. In this case, trainer resources are focused on overall course flow management rather than individualized skills training.

For the assessment phase, trainers are needed to guide the scenario-driven TTA exercise and the final evaluation process. This is the time when trainers are most important, so maximize your resources at this stage. Even when class sizes are large, make every effort to keep the assessment proportion to 1:6–8 students. At the end, all students can be brought back into a single large group for debriefing and course evaluation. If this is the case, one to two trainers are adequate.

If class sizes are large, it is risky and not advisable to bring in additional, non-qualified trainers. It is recommended that each trainer has successfully completed the Train-the-Trainer Course and has been proctored by an experienced trainer to become a qualified trainer. This will minimize 'trainer drift' (deviation from TCCC training) in any capacity.

- **STEP 4: Select an optimal delivery approach tailored to resources and mission set.**

  The course is designed to be flexible and modular, so it can be delivered in a **no-tech, low-tech, or high-tech** way, depending on the mission, resources available, and local training guidance and processes. The course can be delivered in a classroom or a field setting with materials offered in paper and digital formats. Figure 3 depicts the various options.

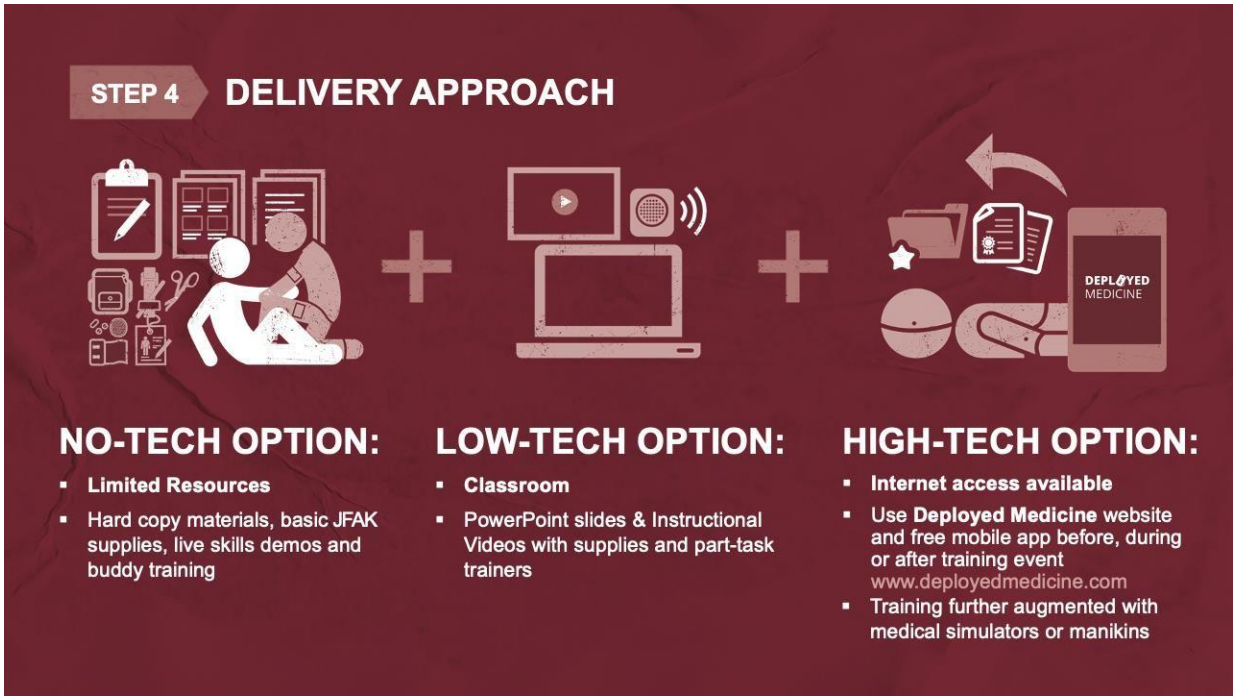

Figure 3: Potential delivery approaches for course delivery

- Initial CMC training will almost always be at a schoolhouse or an installation, but no-tech teaching strategies can be implemented if resources are limited. For a **no-tech option** course delivery**,** students are provided training materials in a hard-copy format. A training buddy can be used to practice and perform the skills. Trainers can provide live skill demonstrations in place of viewing videos.

- For the **low-tech environment**, the trainer uses a computer with a projector, screen, and audio equipment (preferably external speakers) to show PowerPoint slides and play instructional training videos, supplemented by hard-copy materials that are given to the students. Part-task trainers would be used for the hands-on training experience. In this setting, instructional videos should be downloaded in advance. File sizes are large, so it's best to allow ample time to acquire videos from the Deployed Medicine platform for local use ahead of time.

- For a **high-tech environment**, the trainer uses everything in the low-tech scenario, but now may also have Internet access, good telecommunications, and cellular networks, and can have students download and use the Deployed Medicine mobile app to access a digital training support package ahead of training for course preparation or in real-time during the course. The hands-on training can be done using more advanced medical simulators or manikins and use more realistic field training environments to run trauma lanes and add special effects. The high-tech environment should be considered the optimal training environment for organizations to establish.

- **STEP 5: Gather course materials, medical supplies, and equipment:** Trainers must acquire the necessary resources. They must understand and become familiar with the materials and equipment in advance.

Course materials include products to support students and trainers. They consist of a variety of documents, videos, and training aids for use in performing the various skills taught during TCCC-CMC training. Reference the Training Materials and Training Equipment below.

TRAINING MATERIALS

A short description of each training asset is provided below.

- **Course Plan: A Teaching Guide for Trainers** – a comprehensive course plan for trainers to use as a reference to organize and deliver the TCCC-CMC Course.
- **Course Map** – a tool for the trainer to communicate the training plan and course schedule for the student and assistant trainers.
- **Didactic PowerPoint Presentation** – a modular presentation that familiarizes students with TCCC concepts, provides foundational knowledge for performing the skills, and covers cognitive-based learning objectives.
- **Didactic PowerPoint Speaker Notes** – a set of comprehensive speaker notes that provide a script for the trainer to use in delivering the PowerPoint presentation. The notes include critical learning points that should be emphasized throughout the presentation.
- **Skill Cards** – pictorial illustrations of the procedural steps for each skill. Each can be printed individually.
- **Skill Instructions** – step-by-step text instructions to help guide performance of the rapid casualty assessment and basic lifesaving skills.
- **Skills Checklists** – used to assess skill performance. Trainers can choose to use either the “Individual Skills Assessment” and/or the “Tactical Trauma Assessment” depending on the course delivery model selected. Students must pass all the critical tasks to meet the proficiency standard and successfully complete the course. Assessment checklists cannot be changed, but the scenarios can be constructed by the Services based on their mission set, and must be within the realm of tertiary traumatic medical injuries.
- **DD FORM 1380 Tactical Combat Casualty Care Card** – a military form used to document care rendered to a casualty.
- **Student Course Critique** – Immediately after the course has been completed, students will be given a one-page course critique with a variety of questions (both structured and open-ended questions). This information will be used in gathering feedback from students about various aspects of the course to improve future TCCC-CMC courses curriculum and training.

- **Final Assessment/Multiple Choice Examination –** Students will be given a multiple choice examination. The student must receive a passing score of 80% or higher to successfully pass this portion of the course. The trainers will determine remediation efforts in accordance with Service or organizational policies.

- **Instructional Videos –** A video series featuring TCCC medical trainers teaching the skills and providing overviews of the modules. For a complete list of videos, refer to Appendix C.

TRAINING EQUIPMENT

Student Materials

- ☐ Part-task trainers (determined by site)
- ☐ DD Form 1380 (TCCC Card) – NSN 7540-01-647-6165 (laminate for reuse)
- ☐ Pencils or markers
- ☐ Instructional videos
- ☐ Skill Cards
- ☐ Skill Instructions
- ☐ Skills Checklists
- ☐ Student Course Critique

Student Equipment

- See the CMC Equipment List in Appendix D.

COMMON CHALLENGES

After you complete the five-step process, remember that you still need to take time to prepare for the course as a team. The importance of taking time to meet as a training cadre and review the materials and delivery plan cannot be underestimated. This may be less time-consuming once the course has been executed several times, but the initial courses may take more time and several meetings.

The courses with the best feedback include trainer pools where the secondary trainers actively supported the primary trainer, either in the classroom setting or in demonstrating skills in the small group settings.

Some potential challenges you may encounter include the following:

- **Technical challenges displaying presentations and videos:** Some environments (teaching in an austere environment or onboard a ship, for example) are not supportive of a standard classroom approach to delivering PowerPoint presentations and videos. In those cases, consider adapting the training style appropriately, perhaps printing out slides in note pages format and distributing them to the students, for example.

- **Audio challenges when using the instructional videos:** The sound coming from internal computer speakers tends to be too low, and extraneous noises from the training environment may be significant. As a result, external speakers may be needed for students to adequately hear the videos. Another option may be having them use their personal mobile devices to watch the videos.

- **Printing challenges**: Currently, the materials are not available through a DoD printing office and require local resources to print. Adequate time and forethought are needed to provide printed materials for students. Alternatively, students could be prompted to access materials electronically on deployedmedicine.com.

- **Access to training materials: Official training materials can be obtained on deployedmedicine.com:** Before the local rollout of the TCCC-CMC program, support and physical resources should be obtained locally.

IV. COURSE DELIVERY

Several aspects of course delivery require advanced planning and preparation by the entire training team to ensure consistency in their instructional approach and assessment methods.

Experienced TCCC trainers may need to adjust their instructional style for training delivery. This is a new TCCC course, so all trainers must review the curriculum to ensure the appropriate level of training is provided.

ADAPTING YOUR INSTRUCTIONAL STYLE TO THE AUDIENCE

This course is designed to be taught to Combat Medics and Corpsmen. Given differing learning needs, trainers should prepare to accommodate a variety of learning styles and preferences. Some students may prefer hands-on training while others may be visual learners, more comfortable viewing videos and looking at skill cards before attempting skills training.

Here are some **additional tips for trainers:**

- **Stick to the script and materials.** Provide the basic teaching points and skills consistent with the current standards per the speaker notes, instructional videos, and skills cards provided. Avoid conveying the message, “I know that the video/skills card demonstrated this, but in my experience, there is a better way to do it.” It’s okay to add personal experiences or other contextual information to make the course interesting and relevant. However, ensure that the information you introduce doesn’t conflict with the standards being taught.
- **Stay within the intended scope of the course**. Be vigilant to stay within the scope of TCCC-CMC and the content presented.

In summary, here are the strategies for adapting your overall delivery style for this course:

- Whether in a schoolhouse setting or at the installation or unit level, **consider the audience members and their unit’s mission needs.**
- **Be cognizant of your tone, the actual words you use, and your delivery style** to ensure students understand the information and can learn the skills to the standard required.

HOW TO ORGANIZE AND CONDUCT TCCC TRAINING IN SMALL GROUPS

After agreeing on an overall delivery approach, you will execute the training. The following layout can assist the trainer in organizing the students and in training conduction.

After presenting the introductory PowerPoint presentation in a large group, divide students into smaller groups to conduct skills training. Avoid having students randomly spread out

across a large training area as you begin creating groups. This can create several challenges:

- Students may not be able to hear or see demonstrations due to distance and/or a noisy environment.
- Students could be practicing a skill incorrectly (e.g., getting "bad practice reps" when a trainer cannot observe directly, creating a need for remediation later).
- Students may be more prone to socializing or being distracted.

After the groups are evenly divided, it is best to organize these small groups into structured formations, such as a semicircle around the trainer or a straight line in front of the trainer. This ensures the students can be directly observed and supported while practicing.

As described in the course management section, the preferred trainer-to-student ratio for skills training is 1:6–8, or one trainer for every six to eight students. This ratio facilitates effective learning and maximizes training time and efficiencies. If this is not possible, engage more advanced students to provide peer-to-peer support and coaching, or employ other strategies.

Organize students and pair them to facilitate skills training on each other. While part-task trainers are a key part of this training, training with a buddy offers several advantages:

- A more realistic/lifelike experience (feeling and sensation), especially with tourniquet application; it is helpful for students to experience placing a tourniquet on a buddy and having a tourniquet placed on themselves.
- Practicing skills with a partner is more engaging than practicing skills independently on a part-task trainer.
- While functioning as the casualty, the second student begins to anticipate what needs to be done and often helps their partner with reminders about what to do next.
- Once set, initiate the skills training session with a brief introduction and instructions. Tell the students what skills you plan to teach, how you will teach, over what time period, and what is expected of them. Allow time for the students to view the instructional videos, review skills checklists and illustrated skills cards, and become familiar with the equipment and medical supplies before getting started. Use strategies to keep your students engaged in the skill stations, particularly during downtime. Two additional resources will aid in deciding how to run your course.
- Section III, Course Management provides additional discussion about skill station management recommendations.
- Course Map provides suggested skill station practices and evaluation opportunities by Module.

After the introduction and skill demonstrations are completed, you must continuously guide learning and manage activities and time carefully. This is the one area of TCCC training where time can slip away, so provide frequent time prompts or reminders. For example, tell students that after demonstrations, they will have 10 minutes to review reference materials and 15 minutes to practice, or whatever time periods you have dedicated to the particular skill, and keep them on track by facilitating activities. Be mindful of time constraints as students will be alternating between didactic presentations and skill stations throughout the course.

In review, here are the recommendations to run skills training efficiently, stay on time, and make the learning engaging and productive for trainers and students:

- Demonstrate what "right" looks like at the onset through live demonstrations.
- Engage each student by walking around, offering mentorship, and targeted feedback in real-time. Let them know you are available to answer any questions.
- Provide positive reinforcement and motivate students to learn.
- Observe each student during practice to evaluate learning and provide on-the-spot corrections and additional instruction, as needed.
- Manage transitions between didactic presentations and skill stations appropriately.

TCCC PHASE OVERVIEW

There are approximately 83 TCCC skills you must teach. These skills are used differently, depending on the phase of care. To review, in phase 1 or Care Under Fire, students are responsible for assessing scene safety, communicating with others, and applying a hasty tourniquet for massive bleeding. No other treatments will be performed while the casualty and responder are under an active threat. In phase 2 or Tactical Field Care, the responder would continue with the assessment and provide medical aid using the MARCH PAWS sequence, again focused initially on bleeding control.

The **MARCH PAWS** sequence is:

M – Massive Bleeding
A – Airway
R – Respiration
C – Circulation
H – Hypothermia/Head

P - Pain
A - Antibiotics
W - Wounds
S - Splint

It's best to follow the MARCH PAWS sequence when conducting training. For example, start with the **hemorrhage control skills** followed by teaching airway maneuvers. Of note, the head-tilt/chin-lift is the most common technique used. The jaw-thrust is used for those casualties who have suffered an injury due to a fall or blast, where a neck injury is suspected. If necessary, you must teach students that this technique requires assistance from another responder. They will need to maintain the jaw-thrust to keep the airway open, so a second

responder will be required to attend to any other injuries. Continue to use the MARCH PAWS sequence to guide the delivery of the course material.

Research finds that the hardest skill for students to comprehend is the TTA. It requires students to integrate and apply their knowledge and skills under pressure. Students must consider scene safety, how to approach and potentially move a casualty, and how to assess and deliver medical aid based on the use of the MARCH PAWS sequence. The TTA is a series of complex tasks that require the students' complete focus and attention. The key to a good TTA learning experience is using interesting and relevant casualty scenarios.

The overarching strategy recommended to effectively teach this curriculum is the **Whole-Part-Whole** (WPW) course delivery method. The first 'whole' relates to the beginning phases of care leading into the Introduction to TTA. The 'part' phase relates to MARCH PAWS, while the last 'whole' relates to the TTA practice and assessment.

SKILLS REPETITION IN ACHIEVING SKILLS PROFICIENCY

Repetition of information and skills enables learners to gain skills proficiency in the limited time available to complete the training. This can be accomplished in several ways, such as watching the skills videos, observing trainer demonstrations, and practicing actual skills.

Students should perform multiple hands-on repetitions of each critical skill. This is particularly critical for tourniquet application. More repetitions build muscle memory, which students will rely on when faced with performing these skills under pressure in the real world.

Have students apply tourniquets on arms and legs as many times as possible, on themselves (self-application), and on other students of varying body types and sizes to get a true feel for the differences. Repetitions with poor technique (which typically occur with unobserved practice) must be avoided. It is also important to change the injury site so that students learn to assess the proper site to apply tourniquets and apply at different locations on the limb.

V. FEEDBACK, ASSESSMENT, AND REMEDIATION

Student knowledge and skills will be assessed by a trainer using informal and formal assessment techniques. Both forms of assessments involve communicating with students, so it is important to know some techniques that promote interaction and engagement. Although some issues can be easily resolved through simple feedback, others will require additional time to review information or retrain select skills.

Informal assessments are used to help identify opportunities for improvement throughout the training, and a formal assessment validates that a student has attained skills proficiency. The formal assessment process requires using a skills assessment checklist (Individual Skills Assessment and/or TTA).

A learner's abilities are assessed informally in many ways throughout the training process, and a trainer can use those observations and interactions to proactively help the learner progress throughout the training event.

Examples include asking students, individually or as a group, targeted questions to test their comprehension of key concepts or facts, or observing their performance during skills practice sessions. Understanding where students are struggling to master knowledge and skills helps trainers tailor their instruction and redirect training emphasis appropriately during the flow of the course. Feedback can be provided in real-time, but it can also be given later in the training event, depending on the situation.

A formal assessment occurs when trainers are validating, for their installation or unit, that a Service member can accurately perform all the critical tasks and has met the standard for proficiency in TCCC skills.

To do this successfully as a trainer, you must be prepared and proficient in the material and skills you are assessing and know how to properly use the skills assessment checklist. The formal assessment process should focus primarily on the accuracy of skills and completion of the skills checklist, especially the critical steps. The end goal is to ensure every student can successfully pass the course, so informal and formal assessment techniques should be used to ensure a good outcome.

PROVIDING EFFECTIVE FEEDBACK

Good feedback begins with being able to **communicate with students**, so it is important to know your audience. Feedback should be supportive and helpful for TCCC learners.

Use active listening techniques when learners ask you questions. For example, pay attention to the learner's input and use nonverbal communication cues to show your engagement. Also, encourage your students to actively participate and maintain their attention (for example, use a collaborative learning strategy in which students work together to solve a problem, answer a question, or execute a skill). And, of course, show respect while establishing (and maintaining) a positive rapport with your students.

Enhance learning by interacting with small groups and, if possible, with each learner to provide real-time, formative feedback.

Formative feedback involves several important concepts:

- **Focus feedback on the task, not the learner.** When providing feedback, ensure that any comments address the task and don't refer to the learner.
- **Enhance learning by addressing the specific problem, how to improve, and why that's important.** In addition to highlighting the issue, provide constructive guidance on how to improve (and put it in context) so the learner realizes why it is important.
- **Less is more (keep feedback manageable).** Be succinct, so the learner doesn't get lost in a long explanation.
- **Be specific and clear.** Target specific issues that can be improved.
- **Keep it simple and focused.**

- **Align student performance assessment with learning objectives.** Make sure you relate your feedback to the learning objectives.
- **Be unbiased and objective.**
- **Help learners focus on their effort and motivation.**
- **Let learners try (and fail) first before providing feedback.**
- **Be positive.** Give feedback focused on the positive aspects of the problem and provide solutions that emphasize how the learner can succeed.

Two other techniques to consider are providing feedback in the form of plusses and deltas or asking the students to self-reflect and provide their feedback.

Plusses and deltas refer to a technique where the trainer points out the things that a learner has done well (plusses) and then points out areas for potential improvement (deltas). This process has been proven to be better received by students than focusing only on areas that should be improved. Similarly, ask your students to reflect on their performance and internally review what they did correctly and where they can improve. This technique is usually more powerful than any constructive feedback they receive from others.

FORMAL ASSESSMENT PROCESS USING A SKILLS CHECKLIST

Aside from the multiple-choice summative assessment (evaluates knowledge obtained from the didactics), the student must also pass the skills portion of the course by successfully demonstrating proficiency in performing **ALL** the **critical** tasks identified on the Skills Checklists: Individual Skills Assessment and the TTA (at a minimum).

Ideally, each student would be assessed individually using a checklist. However, in mass training environments, assessments may need to be performed on a group depending on the type of training environment and availability of trainers, in which case the trainer would use the checklist as a tool to guide the visual inspection of a small group performing the steps, potentially in a straight-line formation in front of the trainer(s).

To successfully complete the course, each student must meet the minimum passing criteria for both course segments: didactic (one assessment) and skills performance (83 skills and their associated critical tasks).

The skills assessment will evaluate a student's ability to accurately perform all of the critical steps associated with each skill, within any specified timescale required to achieve the standard. For example, a tourniquet must be applied according to the specifications defined on the Skills Checklist within the appropriate timeframe.

Knowledge acquisition and skills performance will be assessed in **two ways**. A custom checklist for each approach is described below:

- **Tactical Trauma Assessment**: First, the skills can be assessed altogether as part of a "culminating event" using a trauma lane–type approach as the final phase of the training day. Students should continuously apply and verbalize knowledge gains in this format as they perform a TTA based on a casualty scenario presented by the trainer using the MARCH PAWS sequence. It is advisable that the trainer prepare the

scenarios in advance. Hard copies can be prepared for distribution in advance so that the students may be able to process the information and prepare accordingly. Additionally, the scenarios can be presented spontaneously. In either case, moulage is helpful in providing visual cues to rapidly identify injury patterns.

- **Individual Skills Assessment**: Skills will be assessed individually, one by one, at skill stations. This training could be woven into other military training courses, so having Individual Skills Assessments may make sense for those settings. For example, it may be appropriate to have a checklist for tourniquet application only, if that module will be taught in isolation on a particular day in the larger course.

Trainers should visually observe learners as they move through the steps of any skill or scenario. If errors or deviations are observed, do not take this moment to take corrective action. Corrections should be offered afterward in a one-on-one feedback session or a group session, depending on whether common mistakes are occurring. If they are, some re-training may be warranted. Either way, students whose demonstration of any critical skill is unsatisfactory should receive additional targeted training and remediation from a trainer.

Assessment checklists cannot be changed, but the scenarios can be constructed by the Services, their mission set, and must be within the realm of tertiary traumatic medical injuries.

REMEDIATION TECHNIQUES

Service members need to successfully demonstrate discipline, knowledge, integration of knowledge gains, and appropriate skills proficiency.

Many of the methods used to provide formative feedback also apply to the remediation process. However, feedback given during training can provide helpful corrective guidance, whereas feedback after a formal assessment requires a more rigorous remediation process due to a persistent deficiency in knowledge, skills, or abilities.

Here are the steps to perform remediation:

- **Provide feedback**: An approach that has been proven effective in remediation is to use written feedback, in addition to the verbal feedback during the initial discussions (about the assessment results). For this training, the actual Skills Checklist, if correctly filled out, will include notes about specific areas in question. That information can be enhanced by expanding on the findings verbally, as appropriate.

- **Allow time for student reflection**: Give the learners time to reflect on their feedback. Consider their perspectives about the assessment; respond to their thoughts on their performance and what they need to do to successfully perform the skills. Allow this time for reflection—this is an important step in the process.

- **Provide targeted training**: Once the trainer and student agree on areas for improvement and potential ways to remedy the deficiencies, dedicate time to performing targeted, individualized training sessions with the learner. Trainers typically conduct remediation, but sometimes, especially in larger groups, other students who

have demonstrated mastery of the skills themselves may be used to assist trainers. The student may be asked to review instructional videos in an individual setting and/or with other students.

- **Re-evaluate**: The last step requires the learner to re-perform the skill or skills until proficiency is demonstrated. On rare occasions, a learner will continue to struggle and require continued remediation that may need to be delayed until another training period can be arranged. If so, it is usually more effective to engage their local leadership to provide time and local training support, rather than just recycling them into another training event.

Trainers must understand assessment methods and incorporate a variety of assessment strategies and techniques. Also, they must offer constructive feedback, communicate with learners throughout the training process, and be prepared to remediate, if needed. The goal is to ensure that the students who complete the course have received the proper training, have been formally assessed, and can use the skills to help save lives. Remediation is recommended, but may have Service/Unit-specific requirements and may be optional.

VI. DEBRIEFING STRATEGIES

At the end of the course, the trainer(s) should lead an informal group discussion and reflect on the students' experiences during a debriefing session. This discussion is time-dependent, and the amount of time spent should be factored into the course schedule. The trainer(s) should highlight specific items they observed throughout the training exercises, keeping in mind that TCCC skills proficiency is the goal of the course.

Effective debriefing sessions should reset the tone, provide direction on the high-yield, take-home messages, and transition Service members from the knowledge/skills-building exercises to the real-world environment. Therefore, the primary purposes of this debriefing session are to:

- Revisit the learning objectives.
- Address any misconceptions.
- Provide general performance feedback.
- Make the content relevant in the day-to-day life of Service members.
- Prepare Service members for their next steps.

To begin, the trainer should highlight what went well and what needs improvement. These are big-picture items that the trainer should highlight for the entire group. Then, the trainer should lead a group discussion while engaging as many students as possible to actively participate.

To gain student perspectives on the training, ask these questions:

- How do you feel about your performance during the training sessions?
- What do you feel most comfortable with?
- What could you use more practice with?

At the conclusion of the debriefing, it's important to highlight online TCCC educational resources that are available to support the students' sustainment of knowledge and skills, and continued, lifelong learning.

VII. COURSE EVALUATION

The course concludes with a Student Course Critique. It is important to collect oral and written feedback from students at the end of the course. This provides trainers with valuable information on how the training was received and whether or not students feel they achieved the learning goals and objectives. It is also an excellent opportunity to identify if the training points, materials, and training aids can be improved to provide a more effective learning experience. It will also help improve the overall course in the future.

While distributing the form, the trainer should thank the Service members for their attention and participation. Give students ample time to complete the form; generally, 10–15 minutes should be adequate. Remind Service members that their feedback is important and will be used to improve upcoming iterations of this course. Collect the completed forms, and dismiss the participants.

The Student Course Critique can be customized to meet Service-specific needs. You may want to check with your local Command to see if there are specific metrics they would like to capture during TCCC training, or other quality or process improvement initiatives. Questions may be added, but the core questions on the Student Course Critique should not be altered or omitted.

From a programmatic standpoint, trainers and relevant stakeholders should consider evaluating the training by collecting information on:

- Accomplishments of the curriculum/course and whether the training met original expectations
- Outcomes that were aligned with original learning objectives and any that were not
- Shortcomings that led to unexpected outcomes
- Suggestions for modifying the program, as appropriate:
  - **Keep** what's working
  - **Fix** what can be fixed
  - **Start** new action items when needed
  - **Stop** what can't be fixed

In addition to the Student Course Critique, the Trainer Course Critique allows trainers to evaluate the course from their perspective and provide constructive feedback to the Joint Trauma Education and Training Branch (JTET-B).

It is recommended that data collected be used locally to improve the course and shared with the JTET-B (TCCC-CMC@deployedmedicine.com or dha.jbsa.j-3.list.jts-jtet@mail.mil.) to inform future changes in curriculum or materials.

VIII. REFERENCES

1. Tactical Combat Casualty Care Guidelines as published by the Committee on Tactical Combat Casualty Care (CoTCCC), December 2021.

2. TCCC Quick Reference Guide, first edition, January 2021.

3. DoD Instruction 1322.24, “Medical Readiness Training (MRT),” March 16, 2018

4. DoD Instruction 6040.47, “Joint Trauma System (JTS),” August, 5, 2018, as amended.

APPENDIX A: ACRONYMS

KEY TERMINOLOGY

AAR	After Action Review
AOR	Area of Responsibility
AV	Audio visual
BSI	body substance isolation
CASEVAC	Casualty Evacuation
CLS	Combat Lifesaver
CMC	Combat Medic/Corpsman
CoTCCC	Committee on Tactical Combat Casualty Care
CCP(s)	Casualty Collection Points
CPG	Clinical Practice Guidelines
CUF	Care Under Fire
DD Form 1380	DoD casualty card
DHA	Defense Health Agency
DHA-PI	Defense Health Agency Procedural Instruction
DOD	Department of Defense
ELO	Enabling Learning Objective
IED	A simple bomb made and used by unofficial or unauthorized forces
JFAK	Joint First Aid Kit
JTET-B	Joint Trauma Education and Training Branch
JTS	Joint Trauma System
KIA	Killed in Action
MACE 2	Military Acute Concussion Evaluation 2
MARCH	Massive Bleeding, Airway, Respiration, Circulation, Hypothermia/Head
MEDEVAC	Medical Evacuation
MIST	Mechanism of injury, Injuries, Symptoms, Treatment
MVA	Motor Vehicle Accident
PAWS	Pain, Antibiotics, Wounds, Splint (MARCH PAWS)
P/F	Pass/fail
POC	Point of Contact
POI	Point of Injury
PPT	PowerPoint
RCA	Rapid Casualty Assessment
SOP	Standard Operating Procedure
TACEVAC	Tactical Evacuation Care
TCCC-ASM	Tactical Combat Casualty Care All Service Members
TCCC-CLS	Tactical Combat Casualty Care Combat Lifesaver
TCCC-CMC	Tactical Combat Casualty Care Combat Medic/Corpsman
TCCC-CPP	Tactical Combat Casualty Care Combat Paramedic Provider
TFC	Tactical Field Care
TLO	Terminal Learning Objective
TTA	Tactical Trauma Assessment
TTT	Train-the-Trainer

USAISR	United States Army Institute of Surgical Research
WPW	Whole-Part-Whole

MEDICAL TERMINOLOGY

AAL	anterior axillary line
AVPU	alert, responds to verbal, responds to pain, unresponsive
BVM	bag valve mask
CPR	cardiopulmonary resuscitation
CWMP	combat wound medication pack
EGA	extraglottic airway
ETI	endotracheal intubation
FDP	freeze-dried plasma
IM	intramuscular
IO	intraosseous
IV	intravenous
LR	lactated Ringer
LTOWB	low-titer group O whole blood
MCL	mid-clavicular line
NPA	nasopharyngeal airway
NDC	needle decompression of the chest
NS	normal saline
OTFC	oral transmucosal fentanyl citrate
PCD	pelvic compression device
PMS	pulse, motor and sensory
PDD	pressure delivery device
PTX	pneumothorax
RBC	red blood cell
SPO2	pulse oximetry
TCD	targeted compression devices
TBI	traumatic brain injury
TBSA	total body surface area
TQ	tourniquet
TXA	tranexamic acid

APPENDIX B: SAMPLE COURSE MAP

This 65-hour course has been planned over an eight-day period but may also be delivered in a modular fashion over a longer period of time or embedded within existing training. The first seven days cover 24 modules of didactic materials and associated skills (with optional skills assessment opportunities). The second half of day seven allows for skills and knowledge practice and remediation. The final day includes a culminating TTA, a summative formal multiple-choice examination, and opportunities for remediation/re-assessment. After the assessment, there is a trainer-led debriefing and a course critique (to be completed by both students and trainers).

The following **Sample Course Map** is structured based on Fink's five principles of curriculum design (Fink, 2013). The goal is to develop learning experiences that are structured in such a way that they scaffold student thinking using a whole-part-whole educational strategy and progressively move them toward the desired course outcomes.

SAMPLE SCHEDULE (Day 1)*:

CONTENT TYPE	MODULES COVERED	TIMELINES (SAMPLE FORMAT)
DAY 1		
Principles & Application of TCCC ■ Didactic ■ Video ○ Intro to Tactical Combat Casualty Care (TCCC) Overview	1	50 minutes
Medical Equipment ■ Didactic ■ Video ○ Combat Application Tourniquet (CAT) Quick Launch Configuration How-To	2	45 minutes
Care Under Fire ■ Didactic ■ Videos ○ Care Under Fire Hemorrhage Control Overview ○ One-Handed Windlass Tourniquet (Care Under Fire) How-To ○ One-Handed Rachet Tourniquet (Care Under Fire) How-To ○ Two-Handed Windlass Tourniquet (Care Under Fire) How-To ○ Two-Handed Rachet Tourniquet (Care Under Fire) How-To ○ One-Person Drags and Carries How-To ○ Two-Person Drags and Carries How-To ■ Skills	3	2 hours
Principles & Application of TFC ■ Didactic ■ Videos ○ CCP Casualty Collection Point (Tactical Field Care) How-To ■ Skills	4	3 hours
	Total for Day 1	6 hours 35 minutes

*** See the Course Map for the full CMC course schedule**

Reference:
Fink, L. D. (2013). Creating significant learning experiences: An integrated approach to designing college courses, revised and updated. San Francisco, CA: Jossey-Bass.

APPENDIX C: VIDEO CHECKLIST

Module 1 – Principles and Application of Tactical Combat Casualty Care
Intro to Tactical Combat Casualty Care (TCCC) Overview

Module 2 – Medical Equipment
Combat Application Tourniquet (CAT) Quick Launch Configuration How-To

Module 3 – Care Under Fire
Care Under Fire Hemorrhage Control Overview
One-Handed Windlass Tourniquet (Care Under Fire) How-To
One-Handed Racket Tourniquet (Care Under Fire) How-To
Two-Handed Windlass Tourniquet (Care Under Fire) How-To
Two-Handed Racket Tourniquet (Care Under Fire) How-To
One-Person Drags and Carries How-To
Two-Person Drags and Carries How-To

Module 4 – Principles and Application of Tactical Field Care
CCP Casualty Collection Point (Tactical Field Care) How-To

Module 5 – Tactical Trauma Assessment
None

Module 6 – Massive Hemorrhage Control in Tactical Field Care
Two-Handed Windlass Tourniquet (Tactical Field Care) How-To
Two-Handed Rachet Tourniquet (Tactical Field Care) How-To
Improvised Limb Tourniquet (Tactical Field Care) How-To
Wound Packing and Pressure Bandage How-To
X-STAT™ Application How-To
Neck Junctional Hemorrhage Control (Tactical Field Care) How-To
Axillary Junctional Hemorrhage Control (Tactical Field Care) How-To
Improvised Junctional Tourniquet Pressure Delivery Device (PDD) How-To
SAM® Junctional Tourniquet (SJT) How-To
iTClamp® Wound Closure Device (Tactical Field Care) How-To

Module 7 – Airway Management in Tactical Field Care
Head-tilt/Chin-lift Maneuver How-To
Jaw-Thrust Maneuver How-To
Nasopharyngeal Airway How-To
One & Two Person Bag Valve Mask (BVM) (Tactical Field Care) How-To
Recovery Position How-To
Mechanical Suctioning How-To
i-gel® Extraglottic Airway How-To
Standard Open Cricothyroidotomy How-To
Cric-Key™ Open Cricothyroidotomy How-To
Bougie-Aided Open Cricothyroidotomy How-To

Module 8 – Respiration Assessment and Management in Tactical Field Care
Respiration Assessment & Management in Tactical Field Care Highlights
Chest Seal How-To
Needle Decompression of the Chest How-To

Module 9 – Circulation/Hemorrhage Control in Tactical Field Care
Circulation and Hemorrhage Control in Tactical Field Care Highlights
Wound Packing and Pressure Bandage How-To
Tourniquet Replacement (Tactical Field Care) How-To
Tourniquet Conversion (Tactical Field Care) How-To
Pelvic Compression Device (PCD) How-To
Improvised Pelvic Compression Device (Tactical Field Care) How-To

Module 10 – Shock Recognition and Management
Shock Recognition and Management Highlights
Field-Ruggedized IV Saline Lock How-To
Intraousseous (IO) FAST1®: Sternal How-To
Intraousseous (IO) EZ-IO®: Humerus How-To
Intraoussesous (IO) EZ®: Tibia How-To

Module 11 – Hemorrhagic Shock Fluid Resuscitation in Tactical Field Care
Tactical Field Care: Administration of Cold-Stored Whole Blood
Tactical Field Care Determining Blood Type (Using EldonCard®) How-To
Donor Blood Collection How-To
Administration of Blood Products How-To

Module 12 – Hypothermia Prevention and Treatment
Hypothermia Prevention and Treatment Highlights

Module 13 – Head Injuries
None

Module 14 – Eye Injuries
Eye Injuries Overview
Rigid Eye Shield Application How-To
Visual Acuity Test How-To

Module 15 – Pain Medications (Analgesia)
Oral Medication Administration How-To
Intranasal (IN) Administration of Medication How-To
Intramuscular (IM) Administration of Medication How-To
Intravenous (IV) Medication Administration How-To
Intraosseous (IO) Medication Administration How-To

Module 16 – Antibiotic Administration
Antibiotics Administration Overview

Module 17 – Wound Management
Open Abdominal Wound (Tactical Field Care) How-To
Wound Management: Impaled Object (Tactical Field Care) How-To
Amputation Bandaging How-To

Module 18 – Burns
None

Module 19 – Fractures
Malleable Splinting (Tactical Field Care) How-To
Rigid Splinting (Tactical Field Care) How-To

Module 20 – Casualty Monitoring
AVPU Assessment (Tactical Field Care) How-To
Assessing Radial Pulse How-To
Assessing Carotid Pulse How-To
Assessing the Posterior Tibial Pulse How-To
Assessing the Dorsalis Pedis Pulse How-To
Assessing the Femoral Pulse How-To
Monitoring: Pulse Oximetry How-To
Monitoring: Electronic Vital Signs How-To

Module 21 – Communication
9-Line MEDEVAC/Mist Report (Tactical Field Care) How-To

Module 22 – Cardiopulmonary Resuscitation in Tactical Field Care
Bilateral Needle Decompression of the Chest How-To

Module 23 – Documentation
DD Form 1380 Combat Casualty Care Card How-To

Module 24 – Preparation for Evacuation
Casualty Preparation for Evacuation (Tactical Field Care) How-To

APPENDIX D: CMC Recommended Medical Equipment List

NOTE: ***This is a recommended equipment list to perform the procedures taught in this course.***

Required Equipment – MASTER LIST (sorted alphabetically)

1. 4x4 gauze dressing
2. 14- or 10-gauge, 3.25-inch needle/catheter unit
3. 18- or 16-gauge needle/catheter unit
4. 22-gauge needle(s)
   - 1 inch for deltoid
   - 1.5 inches for gluteus maximus or thigh
5. 450-500 ml blood collection bag (with attached tubing and needle)
6. 450 ml blood donation bag
7. Abdominal Aortic and Junctional Tourniquet-Stabilizer (AAJT-S)
8. Active warming device
9. After action report (AAR) form
10. Aid bag
11. Alcohol or povidone-iodine pads
12. Antibiotic medication(s)
    - Combat Wound Medication Pack (CWMP) (trainer)
        - Meloxicam (trainer)
        - Ertapenem (trainer)
13. Antiseptic swab/wipe
14. Appropriate Personal Protective Equipment (PPE)
15. Audiovisual equipment
16. Auto-injector intramuscular medications (trainer)
17. Bag valve mask (BVM)
18. Blood administration set
19. Blood donation bag label
20. Blood donor bag measuring device
21. Blood products or simulated blood products
    - Cold-stored low-titer type O whole blood
    - Prescreened low-titer type O fresh whole blood
    - Plasma, red blood cells (RBCs), and platelets in a 1:1:1 ratio
    - Plasma and RBCs in a 1:1 ratio
    - Reconstituted dried plasma, liquid plasma, or thawed plasma and/or RBCs alone
22. Blood warming unit
23. Bougie
24. Clamp
25. Colorimetric end-tidal carbon dioxide (ETCO2) detector
26. Combat Medic/Corpsman (CMC) training materials
27. Combat Wound Medication Pack (CWMP)
28. Communication equipment
29. Cravats (or strips of cloth)
30. Cric-Key™ endotracheal device
31. Cric-Knife®
32. Combat Ready Clamp (CRoC®)
33. DD Form 1380
34. Dry/clean dressing materials

35. Elastic wrap/bandage
36. Eldon Blood Typing Kit
37. EldonCard®
38. Electronic vital signs monitoring device
39. Extraglottic airway (size 3-5)
40. EZ-IO® (Distal Tibia) Intraosseous (IO) Device
41. EZ-IO® (Humerus) Intraosseous (IO) Device
42. EZ-IO® (Proximal/Anterior Tibia) Intraosseous (IO) Device
43. FAST1® Sternal Intraosseous (IO) Device
44. Flanged and cuffed airway cannula (<10 mm outer diameter, 6-7 mm internal diameter, and 5-8 cm of intratracheal length)
45. Gauze
46. Hemostatic dressing
47. Hypothermia prevention kit
48. Improvised pressure control device materials
49. Improvised tourniquet materials
    - Strap, cloth, or flexible material greater than 40 inches in length and folded to at least 2 inches in width (cravat, bandana, strip of trouser leg or towel, necktie)
    - Rigid object for a windlass device ¼-1 inch in diameter and 4-6 inches in length (wooden dowel/stick, broom/mop handle, weapons cleaning rod, freshly cut tree limb)
    - Optional locking ring (keyring, ring seal of commercial liquid bottle, heavy rubber band, or hairband)
50. Intramuscular medications (trainer)
51. Intranasal medications (trainer)
52. Intraosseous medications (trainer)
53. Intravenous administration set
54. Intravenous medications (trainer)
55. Item with text written on it (name tag, Meal Ready-to-Eat wrapper, bandage wrapper, or similar items)
56. IV/IO blood tubing
57. IV constricting band
58. IV/IO fluids
59. IV set
60. JFAK (Joint First Aid Kit)
61. Junctional Emergency Treatment Tool™ (JETT)
62. Kelly Hemostat
63. Kerlix gauze roll
64. Lactated Ringer's
65. Limb tourniquet
66. Litter(s)/litter straps
    - Unit-specific litters
67. Luer lock set
68. Malleable splint materials (SAM® Splint, etc.)
69. Manual suction unit
70. Marking materials (chem lights, signs, etc.)
71. Mechanical suction unit
72. MEDEVAC Request
73. Medication in a nasal atomizer (trainer)
74. Nasopharyngeal airway (NPA)
75. Needle measuring at least 1 inch
76. Normal saline
77. Pain medications (trainer)

- Combat Wound Medication Pack (CWMP) (trainer)
    - Acetaminophen (trainer)
- Ketamine nasal atomizer (trainer)
- Naloxone (Narcan) (trainer) in a vial
- Ondansetron (Zofran-dissolving tablet) (trainer)
- Ondansetron (Zofran) (trainer) in a vial
- Oral transmucosal fentanyl citrate (OTFC) lozenge (trainer)

78. Passive warming materials (e.g., poncho, wool blanket, dry wrap, Mylar, or space blanket)
79. Pelvic compression device (PCD)
80. Permanent marking pen
81. Pressure bandage
82. Pressure Delivery Device (PDD)
83. Pulse oximetry sensor
84. Ratchet tourniquet
85. Rigid eye shield
86. Rigid splint materials (rigid poles, boards, folded cardboard, etc.)
87. Rubber band
88. Saline
89. Saline lock
90. SAM® Junctional Tourniquet
91. SAM Splint
92. Scalpel
93. Screen or white board
94. Securing materials (cravats, elastic wraps/bandages, strips of cloth, clothing/padding, etc.)
95. Sharps container
96. Sterile abdominal dressing(s) or other clean dressing materials (e.g., kerlix roll or field dressings)
97. Sterile water-based lubricating jelly
98. Sublingual/translingual medications (trainer)
99. Syringe 5ml
100. Syringe 10ml
101. Tape – 2-3 inches
102. Tourniquet
103. Tracheal hook
104. Tracheostomy or endotracheal tube
105. Tranexamic acid (TXA) (trainer)
106. Transmucosal buccal medications (trainer)
107. Transparent film dressing
108. Trauma shears
109. Vented chest seal
110. Watch or device that displays seconds
111. Water
112. Water-impermeable covering (i.e., sterile side of a plastic wrapper, IV bag, clear food wrap, etc.)
113. Windlass tourniquet
114. Wound closure device (iTClamp®, etc.)
115. Writing instrument
116. XSTAT® (30/large or 12/small)

***NOTE:* May add any other equipment required per Service guidelines.**

Required Equipment For Skill Stations

Module #	Module Name	Required Equipment
Mod 1	Principles & Application of TCCC	1. Audiovisual equipment 2. CMC presentation 3. Pre-printed CMC material 4. Screen or white board
Mod 2	Medical Equipment	No equipment requirement. This module has no skills assessment.
Mod 3	Care Under Fire	1. Aid bag 2. Appropriate PPE 3. JFAK 4. Rachet tourniquet 5. Windlass tourniquet 6. DD Form 1380
Mod 4	Principles & Application of TFC	1. Aid bag 2. Appropriate PPE 3. Communication equipment 4. Litter(s)/litter straps (Unit-specific litters) 5. Marking materials (chem lights, signs, etc.) 6. MEDEVAC Request 7. Paper 8. Writing instrument 9. DD Form 1380
Mod 5	Tactical Trauma Assessment	1. Aid bag 2. Any other equipment required per Service guidelines 3. Appropriate PPE 4. JFAK
Mod 6	Massive Hemorrhage Control in TFC	1. AAJT-S 2. Aid bag 3. Appropriate PPE 4. CRoC 5. Gauze 6. Hemostatic dressing 7. Improvised tourniquet materials: • Strap, cloth, or flexible material greater than 40 inches in length and folded to at least 2 inches in width (cravat, bandana, strip of trouser leg or towel, necktie) • Rigid object for windlass device 1/4–1 inch in diameter and 4–6 inches in length (wooden dowel/stick, broom/mop handle, weapons cleaning rod, freshly cut tree limb) • Optional locking ring (keyring, ring seal of commercial liquid bottle, heavy rubber band, or hairband) 8. JETT 9. JFAK 10. PDD 11. Pressure bandage

		12. Rachet tourniquet 13. SAM Junctional Tourniquet 14. Tape – 2-3 inches 15. Windlass tourniquet 16. Wound closure device (iTClamp, etc.) 17. XSTAT (30/large or 12/small) 18. DD Form 1380
Mod 7	Airway Management in TFC	1. Aid bag 2. Alcohol or povidone-iodine pads 3. Appropriate PPE 4. Bougie 5. BVM 6. Cric-Key endotracheal device 7. Cric-Knife 8. Extraglottic airway size 3-5 9. Flanged and cuffed airway cannula (<10 mm outer diameter, 6-7 mm internal diameter, and 5-8 cm of intratracheal length) 10. JFAK 11. Kelly Hemostat 12. Manual suction unit 13. Mechanical suction unit 14. NPA 15. Scalpel 16. Sharps container 17. Sterile water-based lubricating jelly 18. Tape – 2-3 inches 19. Tracheal hook 20. Tracheostomy or endotracheal tube 21. DD Form 1380
Mod 8	Respiration Assessment & Management in TFC	1. Aid bag 2. Appropriate PPE 3. JFAK 4. Sharps container 5. Vented chest seal 6. 14- or 10-gauge, 3.25-inch needle/catheter unit 7. DD Form 1380
Mod 9	Circulation/Hemorrhage Control in TFC	1. Aid bag 2. Appropriate PPE 3. Gauze 4. Hemostatic dressing 5. Improvised pressure control device materials: • Casualty's uniform pants, cravats, zip ties, elastic wraps/bandages, sheets, tourniquets, or emergency blankets 6. JFAK 7. Limb tourniquet 8. PCD 9. Pressure bandage 10. DD Form 1380
Mod 10	Shock Recognition & Management	1. Aid bag 2. Alcohol or povidone-iodine pad(s)

		3. Appropriate PPE 4. EZ-IO (Distal Tibia) IO Device 5. EZ-IO (Humerus) IO Device 6. EZ-IO (Proximal/Anterior Tibia) IO Device 7. FAST1 Sternal IO Infusion Device 8. IV/IO fluids 9. IV/IO or blood tubing 10. IV constricting band 11. IV set 12. Needle measuring at least 1 inch 13. Saline 14. Saline lock 15. Sharps container 16. Syringe (10 ml) 17. Tape and/or transparent film dressing 18. TXA 19. 18- or 16-gauge needle/catheter unit 20. DD Form 1380
Mod 11	Hemorrhagic Shock Fluid Resuscitation in TFC	1. Aid bag 2. Alcohol or povidone-iodine pads 3. Antiseptic swab/wipe 4. Appropriate PPE 5. Blood administration set 6. Blood donation bag label 7. Blood donor bag measuring device 8. Blood products or simulated blood products • Cold-stored low-titer type O whole blood • Prescreened low-titer type O fresh whole blood • Plasma, RBCs, and platelets in a 1:1:1 ratio • Plasma and RBCs in a 1:1 ratio • Reconstituted dried plasma, liquid plasma, or thawed plasma and/or RBCs alone 9. Blood warming unit, if available 10. Clamp 11. Constricting band 12. EldonCard® 13. Eldon Blood Typing Kit 14. Intravenous administration set 15. Lactated Ringer's 16. Luer lock set 17. Normal saline 18. Permanent marking pen 19. Sharps container 20. Tape – 3 inches 21. Water 22. 4x4 gauze dressing 23. 18- or 16-gauge needle/catheter unit 24. 450-500 ml blood collection bag (with attached tubing and needle) 25. DD Form 1380
Mod 12	Hypothermia Prevention	1. Active warming device

		2. Aid bag 3. Appropriate PPE 4. Passive warming materials (e.g., poncho, wool blanket, dry wrap, Mylar, or space blanket) 5. DD Form 1380
Mod 13	Head Injuries	No equipment requirement. This module has no skills assessment.
Mod 14	Eye Injuries	1. Aid bag 2. Appropriate PPE 3. CWMP 4. Improvised eye shield materials 5. Item with text written on it (name tag, Meal Ready-to-Eat wrapper, bandage wrapper, or similar items) 6. JFAK 7. Rigid eye shield 8. Tape 9. DD Form 1380
Mod 15	Pain Medications (Analgesia)	1. Aid bag 2. Alcohol or povidone-iodine pads 3. Appropriate PPE 4. Auto-injector intramuscular medications (trainer) 5. Intramuscular medications (trainer) 6. Intranasal medications (trainer) 7. Intraosseous medications (trainer) 8. Intravenous medications (trainer) 9. JFAK 10. Oral medications (trainer) 11. Rubber band 12. Saline 13. Sublingual/translingual medications (trainer) 14. Tape – 2-3 inches 15. Transmucosal buccal medications (trainer) 16. 5ml Syringe(s) 17. 10ml Syringe(s) 18. 22-gauge needle(s) • 1 inch for deltoid • 1.5 inches for gluteus maximus or thigh 19. DD Form 1380
Mod 16	Antibiotic Administration	No equipment requirement. This module has no skills assessment due to administration of medications addressed in Module 15.
Mod 17	Wound Management	1. Aid bag 2. Appropriate PPE 3. Chest seal 4. Elastic wrap/bandage 5. Hemostatic dressing 6. JFAK 7. Materials to secure the dressing (e.g., tape, bandages and/or cravats) 8. Saline 9. Sterile abdominal dressing(s) or other clean dressing materials (e.g., kerlix roll or field dressings)

		10. Water-impermeable covering (i.e., sterile side of a plastic wrapper, IV bag, clear food wrap, etc.) 11. Wound closure device (iTClamp, etc.) 12. DD Form 1380
Mod 18	Burns	1. Aid bag 2. Appropriate PPE 3. CWMP 4. Dry/clean dressing materials 5. Hypothermia prevention kit 6. IV/IO tubing 7. IV needle/catheter unit (minimum 18-gauge) 8. JFAK 9. Lactated Ringer's 10. Normal saline 11. Trauma shears 12. DD Form 1380
Mod 19	Fractures	1. Aid bag 2. Antibiotic medications (trainers) 3. Appropriate PPE 4. JFAK 5. Malleable splint materials (SAM Splint, etc.) 6. Pain medications (trainers) 7. Rigid splint materials (rigid poles, boards, folded cardboard, etc.) 8. Securing materials (cravats, elastic wraps/bandages, strips of cloth, clothing/padding, etc.) 9. Tape 2-3 inches 10. DD Form 1380
Mod 20	Casualty Monitoring	1. Advanced airway (endotracheal tube, supraglottic airway, tracheostomy tube, etc.) 2. Aid bag 3. Appropriate PPE 4. BVM 5. Colorimetric ETCO2 detector 6. Electronic vital signs monitoring device 7. JFAK 8. Pulse oximetry sensor 9. Watch or device that displays seconds 10. DD Form 1380
Mod 21	Communication	1. Communication equipment 2. MEDEVAC Request 3. Paper 4. Writing instrument 5. DD Form 1380
Mod 22	Cardiopulmonary Resuscitation in TFC	1. Aid bag 2. Alcohol or povidone-iodine pads 3. Appropriate PPE 4. JFAK 5. Sharps container 6. 14- or 10-gauge, 3.25-inch needle/catheter unit 7. DD Form 1380
Mod 23	Documentation	1. AAR form

		2. Aid bag 3. Writing instrument 4. DD Form 1380
Mod 24	Preparation for Evacuation	1. Aid bag 2. Appropriate PPE 3. JFAK 4. Litter(s) 5. Litter straps 6. DD Form 1380

Developed by the

JOINT TRAUMA SYSTEM

A Combat Support Division of the