

# ITLS 1st Edition

## Instructor Manuel 2026

### Instructor's note

The ITLS 1st Edition course is part of the International Trauma Life Support curriculum; instructors should follow current ITLS guidelines unless specifically instructed otherwise.

### Introduction

#### 1st Edition Course

ITLS is proud to introduce the first edition of the ITLS Course Manual for Emergency Care Providers. In the manuals, interventions, and skills are presented within each specific chapter, making it easier for students to understand the identification of traumatic conditions and the necessary interventions. The text is divided into three sections. The first section encompasses essential information that all Emergency Care Providers (ECPs) must know to provide excellent and effective trauma care. These areas are reflected in the "Core Content" course lectures, which include the following topics:

- Understanding trauma, including the Mechanism of Injury (MOI)
- ITLS Trauma Assessment
- Shock and Hemorrhage Control
- Trauma Airway
- Traumatic Cardiac Arrest
- Multiple Casualty Incidents

The second section covers select topics, including the following:

- Thoracoabdominal Injuries, including Pelvic Trauma
- Traumatic Brain Injury (TBI)
- Spinal Injury and Spinal Motion Restriction (SMR)
- Extremity Injury

The last section covers Special Considerations and Populations:

- Trauma in Pregnancy, Geriatric Trauma, and Pediatric Trauma
- Pain Control
- Environmental Considerations, including Drowning
- Crush and Blast Injury
- An overview of Trauma Care in High-Threat Environments
- Helicopter Use

During the Patient Assessment Skills station of the course, the Team Leader stresses assessment of the patient, identification of injuries, and the need for the Team Leader to delegate interventions as they look for other life threats/injuries. The Team Leader is responsible for ensuring that interventions are done correctly and in a timely manner. In this way, the assessment station reflects real-world scene practices and fosters teamwork. The amount of anatomy and physiology information presented during the course is minimized because this material should be covered in the foundational training of emergency care providers (ECPs). The chapters include sufficient material to ensure students have a thorough understanding of the



pathophysiology of traumatic injury. At the end of each chapter, a QR code provides a link to an ITLS website, which has further information such as videos, additional references, and useful tools. The Patient Assessment Algorithm flow chart has been redesigned (thanks to ITLS colleagues in Portugal) to be simple and easy to follow. Emphasis is placed on the rapid identification and correction of immediate life-threatening situations.

A full page containing all the assessment algorithms and other useful information can be downloaded and folded into a pocket reference. ITLS continues to emphasize the importance of rapid assessment for life-threatening conditions and critical injuries, initiating only necessary interventions to save the patient on the scene, followed by rapid transport.

We have included the latest American College of Surgeons trauma triage guidelines in Chapter 1, which help identify patients who need care at a Level 1 trauma facility (if available).

In Chapter 2, ITLS Patient Assessment, the secondary survey is briefly reviewed because the chapter's focus is on the identification of critical trauma. Exsanguinating hemorrhage is a major killer. Early application of tourniquets and other bleeding control methods is key to saving these patients.

In Chapter 3, Shock and Hemorrhage Control, we follow the latest guidelines for reducing crystalloid administration and recommend transfusion of blood in the field, if available. After life-threatening hemorrhage control, airway and breathing issues are the next priorities.

Chapter 4, "Airway and Ventilation Management," devotes significant time to proper bag-mask ventilation. While a "basic" skill, it is potentially lifesaving. It is imperative that all ECPs be able to properly and adequately ventilate a trauma patient.

Chapter 5, Traumatic Cardiac Arrest Management, focuses on the ECP identifying and correcting the treatable causes of traumatic cardiac arrest.

Chapter 6 Mass Casualty Incidents, reviews multiple casualty events and covers triage for such events, including the use of the START methodology. Good ventilation is very important in the management of traumatic brain injury (TBI).

Chapter 7 Traumatic Brain Injury. follows the Arizona EPIC program recommendations, which emphasize preventing hypotension and hypoxia, which are major contributors to mortality and morbidity for patients with TBI. Hyperventilation is discouraged as it does not improve outcomes and may be detrimental to the patient.

Chapter 8 Spinal Column and Spinal Cord Trauma Emphasizes early recognition of spinal injury and prevention of secondary spinal cord damage. The chapter focuses on evidence-based use of spinal motion restriction, identification of high-risk mechanisms and neurologic deficits, and integrating spinal precautions into trauma care without delaying life-saving interventions.



In Chapter 9, Thoracic Trauma, which focuses on thoracic injury, we emphasize the importance of identifying a tension pneumothorax. While field decompression is subject to controversy, mostly due to improper placement, we cover the indications, anatomic landmarks, and steps to perform both needle decompression and, if in scope of practice, finger thoracostomy.

Chapter 10, Abdominal Trauma, includes a discussion of the use of ultrasound in the field, as technology is advancing rapidly, lowering costs and improving the functionality of these systems in the prehospital environment. In assessing and managing the patient with suspected pelvic fracture, ITLS stresses that the presence of pelvic pain is a sufficient indication for use of a pelvic binder with the appropriate mechanism of injury.

Chapter 12, Burns, reflects the American Burn Association's guidelines on fluid resuscitation based on patient response, which contrasts with the previous practice of overhydration that was routinely employed in the field.

Chapter 13, Pediatric Trauma, reflects the latest recommendations and guidelines and focuses on the differences between pediatric and adult trauma patients. A revamped Pediatric ITLS Course is coming soon.

Chapter 14: Geriatric Trauma, emphasizes the unique challenges of trauma in older adults, recognizing that low-energy mechanisms can cause severe injury. The chapter highlights age-related physiologic changes, polypharmacy, and atypical presentations, reinforcing the need for a high index of suspicion and early, appropriate triage to improve outcomes.

Chapter 15: Pediatric Trauma, focuses on the anatomical, physiological, and emotional differences that affect the assessment and management of injured children. Emphasis is placed on recognizing subtle signs of serious injury, adapting airway and circulatory management, and preventing secondary injury through early intervention and appropriate transport decisions.

Chapter 16, Environmental Emergencies, includes updates on the management of the drowning victim and emphasizes that drowning is really a breathing problem, not a cardiac problem. Heat and cold injury discussions review the steps that ECPs take to identify immediate life-threatening conditions and the necessary interventions.

Chapter 17: Burns and Thermal Injuries, addresses the assessment and management of burn patients, emphasizing early recognition of airway compromise, accurate estimation of burn severity, and prompt initiation of resuscitation. The chapter highlights the importance of preventing hypothermia, managing pain, and ensuring timely transport to appropriate burn care facilities.

Chapter 18, "Considerations in High-Threat and Tactical Settings," is written to orient the ECP to the risks and challenges of providing care in such situations. The chapters on pain control and helicopter transportation have been written to reflect differences around the world in approaching these issues.



Chapter 19: Pain Control, in the Prehospital Setting emphasizes the importance of early, appropriate pain management as part of high-quality trauma care. The chapter integrates pain assessment into the ITLS algorithm, highlighting both nonpharmacological and pharmacological strategies to reduce pain, improve patient cooperation, and avoid delaying transport or life-saving interventions.

Chapter 20: Shock, focuses on the early recognition and management of shock in the trauma patient. Emphasis is placed on identifying subtle signs of hypoperfusion, understanding different shock states, and initiating timely interventions to prevent progression to irreversible shock and improve patient outcomes.

## **Overview of ITLS**

ITLS is a nonprofit organization based in the United States, exempt from federal income tax under Section 501(c)(3). The organization is governed by a Board of Directors, which is elected annually at the ITLS International Trauma Conference, with members serving three-year rotating terms. Board seats are also designated for the American College of Emergency Physicians and the Alabama Chapter of the same organization, each of which appoints one member.

The ITLS 1st Edition Providers Course equips emergency healthcare professionals (ECP Emergency Care Providers ) to assess, prioritize, and manage trauma patients in any setting. The curriculum employs adult learning principles—utilizing case discussions, skill stations, and scenario-based activities—to foster evidence-based interventions that save lives.

Students should be prepared for active participation, wearing practical attire, and bringing relevant equipment such as a stethoscope and notebook.

## **General Course Concept**

ITLS courses equip students with essential knowledge and hands-on skills to care effectively for trauma patients. The program emphasizes quick evaluation, targeted interventions, and identification of immediate life-threatening situations. Its framework for trauma care—centered on speed, effectiveness, and suitability with a degree of flexibility—is a global standard applicable in any setting.

ITLS combines classroom teaching with practical training. Students also work through scenario assessment stations, applying their knowledge in simulated trauma situations. Courses are designed, coordinated, and led by experienced emergency health care providers and ITLS professionals. Each ITLS course includes a detailed manual that enhances learning with comprehensive content, photos, and illustrations. Written by trauma care experts and reviewed by the ITLS Editorial Board, the manual serves as a helpful reference and review resource after the course.

ITLS is an approved provider by the Commission on Accreditation of Pre-Hospital Continuing Education (CAPCE), formerly CECBEMS, and all courses are CAPCE-certified. Many organizations, including the National Registry of Emergency Medical Technicians, recognize CAPCE credits as the standard for continuing education in EMS. For more information about CAPCE, please visit [capce.org](http://capce.org).



## Goal

The course aims to ensure that emergency healthcare providers can efficiently identify and manage life-threatening conditions, prioritize interventions, and facilitate safe transportation. Emphasizing decision-making alongside technical skills, it uses dynamic simulated stations and interactive scenarios instead of standard lectures.

## Use of the Manual

The ITLS textbook is central, offering chapter-based learning objectives, integrated figures, and comprehensive trauma concepts. It serves as both a classroom reference and a guide for self-study. Instructors should use it throughout the course to reinforce key topics.

## Use of PowerPoints

PowerPoint slide decks cover all chapters, synchronized with the textbook and Instructor Guide. Slides introduce objectives, highlight practical skills, and provide visual references, supporting instructor-led discussion but not replacing hands-on practice.

## Integration of Concepts

Instructors should bridge textbook content with field application, tailoring emphasis based on learner needs. Core skills, such as the ITLS Primary Survey, are prioritized, with flexibility for special topics. The “pause and reassess” method is encouraged for situational awareness.

## Grading Rubrics

Two rubrics are used:

- **Skill-Based Tasks:** Competent/Inadequate (C/I)
- **Scenario-Based Tasks:** Proficient (3), Competent (2), Inadequate (1)

These rubrics verify technique and decision-making, providing clear feedback.

## Frequently Asked Questions

- **Target Audience:** All Emergency Health Care Providers, basic to advanced.
- **Eligibility:** Basic level or above recommended.
- **Textbook Policy:** All students receive the ITLS manual 2 weeks before the course.
- **Completion:** Attend full course, complete skill stations, pass assessments/exams.
- **Performance Criteria:** Demonstrate timely, compassionate primary survey, airway, hemorrhage control, safe patient trauma management, communication, and teamwork.
- **Pass-Fail:** Complete stations, score competent or higher, pass exam ( $\geq 74\%$ ). If the student fails both the didactic and Skills assessment, they must retake the course.
- **Written Exam:** Required for certification with an open-book policy.
- **Retest Policy:** One retest allowed; repeat course if failed.
- **Certification:** Confirms competence; does not extend the scope of practice.
- **Cards/Certificates:** Valid for 2,3, or 4 years. It depends on the Chapter and the Medical director.
- **Recertification:** Refresher or full course within 3 years.
- **Class Size:** Max 6:1 student-to-faculty ratio for skills/testing.
- **Faculty:** Certified ITLS instructors only.
- **Medical Director:** Required, preferably an emergency physician.
- **Courses Outside Chapter:** Permitted with advance approval.



- **ITLS Contact:** info@itrauma.org, www.itrauma.org

## Teaching the Course

Instructors should focus on making timely decisions and prioritization, rather than just procedural performance. Before teaching, ensure the availability of space, materials, equipment, rosters, and student evaluation forms. Tailor the course to participants' experience levels.

## Frequently Asked Questions:

### *Who is the Target Audience for the Course?*

The primary target audience comprises emergency care providers at the EMT, paramedic, nursing, or physician level responsible for the initial evaluation and management of trauma patients. The course is tailored for personnel engaged in EMS, fire/rescue, hospital-based emergency care, and acute care environments.

Individuals with basic medical training (e.g., Emergency Medical Responders) may attend the basic level course; however, instructors should recognize that such learners may require additional support to master the course content.

### *What is the Student Manual Policy?*

All students must be provided with a copy of the ITLS 1st Edition manual. It is recommended that the manual be distributed two weeks before the course so students can prepare in advance.

### *What Constitutes Course Completion?*

Students are required to:

- Attend the entire course (typically 16 hours for Provider, 8 hours for Refresher).
- Successfully complete skill stations.
- Pass the patient assessment testing scenario.
- *Pass the written exam with a 74%.*

### *What Are the Performance Criteria?*

Students must demonstrate proficiency in:

1. The ITLS Primary Survey and rapid trauma assessment.
2. Airway management and ventilation support.
3. Hemorrhage control and shock recognition.
4. Thoracic and abdominal trauma management.
5. Communication, teamwork, and preparation for transport.



### *What Are the Pass-Fail Criteria?*

To successfully complete the ITLS course and obtain certification, students must:

- Complete all skill station checkoffs.
- Achieve a score of Competent or higher on their final patient assessment scenario.
- If a written exam is administered, attain a minimum score of 74% (the standard ITLS passing score).

### *What is the Written Examination Requirement?*

The written exam is compulsory for ITLS Provider certification. It encompasses multiple-choice questions covering the knowledge objectives of the course. The exam serves to reinforce key concepts and provides valuable feedback for both learners and instructors. We allow an open-book policy only during the written exam. However, if the Chapter and Medical director choose not to use the written exam, they may choose not to use it.

### *What Is the Retest Policy?*

Students who do not pass the written exam or final patient assessment may be granted an opportunity for retesting at the discretion of the course coordinator. Students failing both assessments are required to retake the course to attain ITLS certification.

### *What Does Certification Mean?*

Attaining certification as an ITLS Provider signifies that the student has demonstrated competence in trauma assessment and management through skill and scenario evaluations. It does not, however, confer licensure or expand the scope of practice. Students must operate within the boundaries of their credentialed level of care.

### *What Type of Card and Certificate Is Provided?*

Upon successful completion, students are issued an ITLS Provider or ITLS Refresher card, contingent upon the course attended. These cards are issued via the ITLS Course Management System (CMS) and are valid for a period of 2,3,4 Years, depending on your location and medical direction.

### *How Long is the ITLS Certification Period?*

The certification remains valid for 2, 3, or 4 years (Set by the chapter teaching the course).

### *How Does an ITLS Provider Get Recertified?*

Providers are required to complete an ITLS Refresher Course or retake the full ITLS Provider Course within the initial certification to maintain their credential.

### *How Many Students Can Be Taught in a Course?*

The maximum number of students is dictated by available faculty, equipment, and classroom space. ITLS mandates a student-to-faculty ratio of no more than 6:1 for skill stations and patient assessment testing.

### *Who Can Teach the Course?*

Each ITLS course must include at least one Affiliate Faculty and one Medical Director. Faculty members must hold current ITLS Instructor certification. Instructors are restricted to teaching skills within their authorized scope of practice.



*Does the ITLS Course Require a Medical Director?*

Yes. It is mandatory to have a Medical Director to ensure clinical oversight of the course. The Medical Director should be a licensed physician with experience in emergencies or trauma care and available by phone or on-site on the course.

*Can ITLS Courses Be Conducted in Areas without an Established ITLS Chapter or Training Centre?*

Yes. ITLS courses may be conducted outside a recognized ITLS Chapter by applying for a Course Outside a Chapter to the International Trauma Life Support Office at least 60 days prior to the course date.

**PLANNING AN ITLS COURSE**

*Scheduling a Course*

ITLS courses must be scheduled with the consultation and approval of your local ITLS chapter or training center. If you do not know how to contact this organization, you may find this information online at [ITRAUMA.org/programs](http://ITRAUMA.org/programs).

**Selecting a Course Coordinator**

The course coordinator plays a crucial role in ensuring the program's success. This role demands an individual who is organized and motivated, as it involves significant work over several months. For the specific qualifications of a course coordinator, consult the Policy & Procedure manual of your local chapter or training center. Effective teamwork and communication are essential for a successful ITLS course. The course coordinator must maintain a smooth working relationship and open communication with the medical director and affiliate faculty, as collaboration is vital for achieving positive results. They are responsible for selecting the course site and faculty based on availability and the project timeline. Typically, developing a course takes about three months, with the last two weeks being the most demanding. ITLS also requires the course coordinator to be present on site during the course.

**Selecting a Course Medical Director:**

The course medical director must be a licensed physician and an ITLS instructor in the jurisdiction where the course takes place. Physicians who are not ITLS instructors can co-direct with an ITLS-certified physician. The medical director is responsible for ensuring the overall quality of the course. They should be available for consultation during the course, although not necessarily on-site at all times—preferably when possible. By familiarizing themselves with all course content and ensuring adherence to chapter, training center, and ITLS International guidelines, the medical director takes accountability. They will chair the faculty meeting at the end of the course, with the majority vote deciding issues such as grading, the director votes only in the event of a tie. If the course coordinator or an affiliate faculty member is away from the site, they may chair the meeting.

**Selecting Faculty:**

Faculty selection for an ITLS course typically involves a medical director, a course coordinator, affiliate faculty, and sufficient instructors to support student enrollment. A multidisciplinary team is recommended for balanced training.

Each course must have at least one affiliate faculty on-site for quality assurance and adherence to ITLS standards. Instructor numbers depend on students: a 6:1 student-to-faculty ratio at skill stations. Patient assessment needs many instructors to keep the course reasonable, and the number of lecture instructors varies.



Choose instructors based on their strengths in lectures, skills, or both. Use local faculty when possible. Out-of-town instructors are costly and usually expect travel expenses, though some serve unpaid. Having the same instructors both days is preferred but not essential. Instructors should be consistent in teaching methods, which can be achieved through instructor meetings before the course.

## **INSTRUCTOR TRAINING COURSE**

Overview: ITLS uses a hybrid model for Instructor training: the ITLS Instructor Course, a Blended-Learning Approach. This course combines an online component with a classroom component in a program designed to build better instructors who can deliver ITLS training more effectively to a global audience.

To become an ITLS instructor, one must:

- Successfully complete the ITLS Provider course they wish to teach (Advanced or Basic, or Pediatric). Individuals who complete an Advanced course are eligible to teach Basic and Advanced-level courses.
- Earn the Instructor Potential designation by achieving specific scores on the Written Exam and Practical Exams at the Provider course:
  - 1. At least 86% on the Written Exam, with an opportunity to retake the exam 24 hours later to achieve.
  - 2. Proficient in the Patient Assessment Practical Exam
- Purchase and complete the Instructor Course Online Component, an 8-module online course built on a foundation of adult education principles.
- Attend an Instructor Course Classroom Component course, where they will review and practice facilitating skill stations, administering testing procedures, and evaluating student performance.
- Be monitored while teaching a lecture, skill station, and testing at an ITLS Provider course.
- Receive their ITLS Instructor card and become eligible to instruct at ITLS courses.
- The use of the Instructor Course Online Component is mandatory. Files are available for translation for those locations whose students require it. Instructor Courses that use translated materials will pay a student certification fee per student (the cost of the Instructor Course Online Component registration).
- The full ITLS Instructor program must be completed within 1 year, by completing the course, beginning with the Online Component and finishing with successful Instructor Monitoring.



## **Instructor Course Online Component**

The Instructor Course Online Component is built on a foundation of adult education principles. It is composed of interactive modules with video examples to illustrate the course's core teachings.

The Online Component includes 8 modules:

- History & Organization of ITLS
- The Learning Environment
- Learning Styles
- Delivery Methods
- Communication Styles
- ITLS Skill Stations
- Constructive Feedback
- Student Evaluations

The Online Component must be fully completed prior to attending the Classroom Component, as its didactic content provides the foundation for what will be covered there.

## **Instructor Course Classroom Component**

The Classroom Component is a 6.75-hour hands-on course where instructor candidates review and practice facilitating skill stations, administering tests, and evaluating student performance. The course content and activities are detailed in five Lesson Maps, which provide the essential information for successfully conducting the Classroom Component and align with the agenda below. These Lesson Maps were created to ensure consistent delivery of the ITLS Instructor program, offering guidance to create a positive experience for both instructor candidates and trainers.

Lesson Map Topics

Facilitating ITLS Cognitive Sessions – Lesson Map 1

Facilitating ITLS Patient Assessment Scenarios – Lesson Map 2

Facilitating ITLS Skill Stations – Lesson Map 3

Facilitating ITLS Evaluation and Testing – Lesson Map 4

Requirements of Instructor Monitoring – Lesson Map 5

Review the ITLS Instructor Course Classroom Component Guide for Coordinators to understand the Lesson Maps and detailed requirements for conducting a successful Classroom Component Course. This material is accessible through ITLS International.

Instructor candidates must be observed during lectures, skill stations, and patient assessment tests in an ITLS Provider course. They are paired with experienced instructors during skill station and patient assessment scenario teaching and testing. Usually, an approved Affiliate Faculty member monitors the candidate, but chapters and training centers may allow other roles, such as course coordinators or medical directors, to oversee this as well.

As a Classroom Component coordinator, you must stay informed about instructor monitoring procedures within your chapter or center. At the end of the Instructor Course Classroom Component, you will inform candidates about completing the Instructor Monitoring process. ITLS does not set a specific number of courses an instructor candidate must teach for monitoring. Instead, it depends on the observing instructor's feedback. Some candidates may need to attend a second course to gain confidence, which should be agreed upon by the



monitoring instructor, the candidate, and, possibly, chapter or training center administrators. After the candidate meets the monitoring requirements, the monitoring instructor should complete the Instructor Monitoring Form (Section 4) and send it to the chapter or center for records. The instructor card and certificate should only be issued once all monitoring has been completed. This process may be handled by the chapter or training center coordinator or the Classroom Component coordinator, depending on your local procedures. Ensure you are familiar with the specific procedures in your ITLS chapter or training center.

### **Instructor Roles and Responsibilities**

The Hippocratic Oath mandated that medical practitioners vow to educate others in the art of medicine. This principle remains vital today, as medicine is not merely a trade but an art form to which practitioners must contribute for its continual advancement. Teaching plays a crucial role in this, as our influence can pass through generations, impacting lives long after we are gone. Volunteering our time to teach others how to save lives stands as one of medicine's highest traditions. ITLS instructors must be thoroughly knowledgeable about all ITLS materials to present their topics clearly and cohesively, ensuring their lessons connect well with the rest of the course. It's equally important that instructors stay accessible to students for questions and personalized guidance, including during meals and social interactions. Often, students feel more comfortable asking their real questions after building a rapport with the instructor. While there may be times when instructors can only briefly present material, ideally, they should remain for the entire course.

The ITLS curriculum relies on the best scientific evidence available for trauma care. Not all aspects of trauma management are supported by evidence; in such cases, ITLS depends on consensus among global trauma care professionals and educators. The course materials are regularly reviewed and updated by the ITLS Editorial Board to reflect the best current practices. In teaching the course, instructors must adhere to the principles of patient assessment and management outlined by ITLS. Teaching conflicting materials could confuse students. If concerns arise about the curriculum, instructors should contact their chapter affiliate or medical director and refrain from debating course content during the training. If you disagree with ITLS material or approach, do not agree to teach and instead discuss your concerns with your chapter medical director. Ultimately, every ITLS instructor's goal is to equip students with the skills and knowledge necessary to provide optimal trauma care.



## Case-Based Learning

ITLS promotes the integration of case-based learning principles in its courses across chapters and training centers. This approach helps students enhance their analytical thinking and reflective judgment through active engagement with real-world scenarios. Case-based learning addresses the cognitive, affective, and psychomotor aspects of education. Students' progress from initial learning to mastery by gaining exposure to various perspectives through group discussions. The model fosters responsibility, accountability, and autonomy in learners. The ITLS Case-Based Learning Guide and Practice Scenarios offer detailed insights into this method, including a continually updated scenario repository and an evaluation rubric. These resources are available through ITLS International.

## Lectures

ITLS course lectures aim to cover both basic and advanced topics related to emergency trauma care. Keep this focus in mind during your presentation and avoid including material not suitable for students. You may add practical and relevant content, but ensure the lecture stays within the scheduled time. Students are expected to have read the chapters beforehand. During your lecture, concentrate on presenting, reinforcing, and clarifying the key concepts. Since ITLS slides do not differentiate between basic and advanced courses, if you're teaching EMTs or first responders, clarify that they are not responsible for the more advanced procedures shown on the slides. Nevertheless, including these procedures helps familiarize students with scenarios where requesting an advanced team might be advantageous.

Lectures available:

Chapter 1: **Approach to Trauma Patient**

Chapter 2: **ITLS Assessment**

Chapter 3: **Hemorrhage and Shock**

Chapter 4: **Airway and Ventilation Management**

Chapter 5: **Traumatic Cardiac Arrest Management**

Chapter 6: **Mass Casualty Incidents**

Chapter 7: Traumatic Brain Injury

Chapter 8: Spinal Column and Spinal Cord Trauma

Chapter 9: Thoracic Trauma (Chest Injury)

Chapter 10: Abdominal and Pelvic Trauma

Chapter 11: Extremity Trauma

Chapter 12: Burns

Chapter 13: Pediatric Trauma

Chapter 14: Geriatric Trauma

Chapter 15: Trauma in Pregnancy

Chapter 16: Environmental Emergencies

Chapter 17: Crush and Blast Injuries

Chapter 18: Considerations in High Treat and Tactical settings

Chapter 19: Pain Control in the Prehospital Setting

Chapter 20: Helicopter Utilization

**\*\*Chapters in Bold are Required to be covered in class\*\***

***Refer to the course Lesson Plans for topic-specific key points and instructor notes.***

## Skill Stations

Skill stations are at the heart of the ITLS course and are a key component of student success. The skill stations should complement and reinforce the lecture information already presented. If necessary, provide a very brief



demonstration of the skill. The time you spend demonstrating a skill is time taken away from the student's practice time.

Skill station equipment lists can be found in Section 4 of this Coordinator and Instructor Guide. The skill station objectives and teaching content are in the student textbook. The skill stations are:

1. *Assessment Skills*
2. *Airway Skills*
3. *Thoracic Trauma Skills*
4. *Shock and Hemorrhage Control Skills*

### **Before You Teach:**

The ITLS 1st Edition Providers Course is a distinct emergency health care course for students, focusing on decision-making and prioritization in trauma care rather than solely performing individual procedures. Accordingly, clinical flow, skills practice, and patient assessment testing require instructors to be knowledgeable about the textbook content and case-based learning methods.

To prepare for teaching, verify that the following resources are available, identified, or reviewed by all instructors:

- Classroom space
- Skills station space.
- Scenario/patient assessment space
- Restroom/food/break space
- All lecture materials (slide decks)
- Clinical flow
- Selected patient assessment testing scenarios
- Final exam questions and answers (if required by local guidelines)
- Lecture delivery materials (computer, projector, PowerPoint program, etc.)
- Instructor Guide
- ITLS 1st Edition Textbook (for reference/discussion)
- Appropriate skill station equipment and manikins/actors for scenarios
- Student writing materials
- Whiteboard, markers and erasers, or chalkboard with chalk

Additionally, student rosters should include names, contact information, and their level of training and experience, allowing for the tailoring of course content accordingly. A student evaluation form is provided at the end of this manual for printing or electronic distribution to collect feedback.





## Practice and Testing Stations

The goal of the ITLS course is to enable rapid assessment and management of trauma patients. This time of practice, teaching, and then testing is extremely important.

1. Review teaching methodology.
2. Familiarize yourself with what the members of the team are allowed to do during practice and testing. Review the section titled “How to Function as a Team” of the Student Guide (found in Section 4 of this Coordinator and Instructor Guide).
3. Review Chapters 2 and 3 in the student manual.
4. During the practice-teaching portion, use the full time allotted. Allow the students to proceed with as little interruption or prompting as possible. When they have finished, critique their performance, show them how to do it correctly, and then allow them to practice as time permits.
5. During the testing portion, you should avoid teaching or prompting. As soon as one team finishes its test, you should immediately prepare for the next team’s testing. It is a long session; you must keep things moving.
6. Carefully observe the learner’s performance and provide necessary information during evaluation. After the scenario is complete, use the evaluation tool to grade the learner’s performance and provide comments for possible improvement. We recommend two instructors at each assessment station: one to interact with the team and the other to document performance. If two instructors are used, they should discuss the performance and assign scoring when the assessment station is complete. We understand that one instructor may be used for efficiency, so we recommend that they make notes, stay engaged with the student during the scenario, and then complete the evaluation sheet based on those notes.
7. Fill out the evaluation tool:
  - a. Write the team leader’s name, team members, and the scenario number at the top.
  - b. A “P” or “T” in the scenario number indicates if the evaluation is a practice or test.
  - c. Make pertinent notes and comments (good and bad). Do not record unkind or jesting remarks; the students are allowed to review their evaluation tool.
  - e. Review the criteria; determine the grade and document why the student received that grade.
  - f. Sign the grade sheet. It is important at the post-course faculty meeting to know who graded each student.



## How to Present the Scenario to the Student

1. The scenario should be presented in the hall outside the room so that the scene does not distract the students.
2. Have the students introduced themselves and given their profession, level of training, and type of work? Use the appropriate setting (prehospital, occupational health/industrial, healthcare facility) based on the students' background and work setting.
3. Remind students that they have medical directions available on the radio.
4. Remind students that this is an interactive scenario. They may need to request assessment findings or results after interventions, and you will also be asking them questions.
5. Ask students whether they have any questions.
6. Dispatch the call as it would be dispatched in a real situation.

### Performance Criteria/ Testing

ITLS recommends having two instructors at each testing station: one to facilitate the scenario with the student and the other to record the student's performance. However, one instructor may be used, taking notes while staying engaged with the students, and then completing the evaluation form when finished.

Performance criteria are categorized as follows:

#### Inadequate Rating:

1. Does not identify existing hazards, placing the team or patient at risk of additional injury or illness.
2. Does not perform an Initial Assessment or misses at least one critical area.
3. Does not perform a Rapid Trauma Survey or Focused Exam or does not identify all critical injuries.
4. Does not perform or direct indicated interventions.
5. Does not coordinate team members or resources to perform tasks and meet objectives.
6. Does not perform a Reassessment Exam at defined intervals or does not correctly adapt interventions.
7. Does not prioritize Secondary Survey, or if done, does not identify additional injuries. It is worth bearing in mind that in critically ill patients, the secondary survey may be performed only when the patient is in the hospital/ trauma center or for a limited time.

#### Competent Rating:

1. Identifies existing hazards and does not place the team or patient at risk of additional injury or illness.
2. Performs an Initial Assessment and assesses all critical areas.
3. Performs a Rapid Trauma Survey or Focused Exam and identifies all critical injuries.
4. Performs or direct indicated interventions.
5. Coordinates team members and resources to perform tasks and meet objectives.
6. Performs Reassessment Exams at defined intervals. Correctly adapts interventions.
7. Prioritizes Secondary Survey and, if done, identifies additional injuries.

#### Proficient Rating (Instructor Potential):

1. Efficiently and effectively identify all existing and potential hazards, and do not place the team or patient at risk of additional injury or illness.



2. Performs an efficient and effective Initial Assessment, assessing all critical areas.
3. Performs an efficient and effective Rapids Trauma Survey or Focused Exam and identifies all critical injuries.
4. Efficiently and effectively performs or directs indicated interventions that are prioritized.
5. Performs efficient and effective Reassessment Exams at defined intervals. Correctly adapts interventions.
6. Prioritizes Secondary Survey and, if done, is efficient, effective, and identifies all additional injuries.

Competency refers to the minimum accepted standard. "Competent" lives in a yes/no framework (an objective observation). One is either competent or not.

Proficiency involves a level of mastery that exceeds the minimum and represents the degree of competence or expertise. "Proficient" lives in a sliding scale framework (a subjective observation) where one can strive to be more proficient.





ACTION	✓	COMMENTS
<b>PATIENT ASSESSMENT - SECONDARY SURVEY</b>		
Repeat Initial Assessment		
Repeat vital signs		
Consider Cardiac monitor, SpO <sub>2</sub> , EtCO <sub>2</sub>		
<b>LOC</b> AVPU		
If conscious, orientation and emotional state		
If altered mental status, GCS		
If altered mental status, blood glucose		
If altered mental status, SpO <sub>2</sub>		
If altered mental status, consider naloxone		
<b>Pupils</b> Size, equality, response to light		
<b>Motor</b> Move fingers and toes?		
<b>Sensation</b> Feel fingers and toes?		
If unconscious, respond to pinch?		
<b>Head</b> DCAP-BTLS-TIC		
Raccoon eyes		
Battle's signs		
Drainage from ears or nose		
Mouth		
Reassess airway		
<b>Neck</b> DCAP-BTLS-TIC		
Neck vein distention?		
Tracheal deviation?		
<b>Chest</b> DCAP-BTLS-TIC, paradoxical movement		
Instability and crepitation		
Breath sounds Present? Equal? Quality?		
If decreased breath sounds, percussion		
Heart sounds		
Recheck wound seals, injuries		
<b>Abdomen</b> Signs of blunt or penetrating trauma		
Palpate all quadrants for tenderness, rigidity		
<b>Pelvis and Extremities</b> DCAP-BTLS-TIC		
PMS distal to injuries on extremities		
<b>IF CRITICAL, TRANSPORT IMMEDIATELY</b>		

CRITICAL ACTIONS	
	Completes scene size-up and uses universal precautions
	Performs initial assessment and interacts with patient
	Performs organized rapid trauma survey or focused exam
	Ensures spinal motion restriction when clinically indicated
	Ensures appropriate oxygenation and ventilation
	Recognizes and treats all life-threatening injuries
	Uses appropriate equipment and techniques
	Recognizes critical trauma, time and transport priorities
	Performs ITLS Secondary Survey (when time permits)

IMPORTANT ACTIONS	
	Performs ITLS Reassessment Exam (when time permits)
	Utilizes time efficiently
	If critical, notifies medical direction early
	Gives appropriate report to medical direction
	Demonstrates acceptable skill techniques
	Displays leadership and teamwork

ADDITIONAL ACTIONS	
	Finish bandaging and splinting after ITLS Secondary Survey (when time permits)
	Vital signs every 5 minutes for critical patients, every 15 minutes for stable
	Repeats Reassessment Exam each time patient moved or intervention performed
	Repeats Reassessment Exam if patient condition worsens
	Appropriately interacts with patient, family and bystanders
	Communicates with patients and/or bystanders

OVERALL GRADE		
[ ] Proficient (IP)	[ ] Competent	[ ] Inadequate
Comments:		
Lead Instructor Name (print):	Signature:	
Instructor Name (print):	Signature:	
Instructor Name (print):	Signature:	



## Written Exam

Students must achieve a minimum score of 74% or higher on the standardized ITLS Written Exam to pass. Since January 1, 2019, ITLS has adopted an Open Resource Policy for the Written Exam, applicable to all chapters and training centers. During the exam, students can consult the textbook or personal written notes, but electronic devices are not permitted. The exam must be completed within 1.5 hours. Students who pass the written exam but do not succeed in the practical skills component will receive a certificate of course completion and continuing education hours, but not an ITLS certification card. To be fully certified in ITLS, students must attend the full 16-hour course.

## Post Course:

Once the course concludes, the Chapter coordinator is required to retain exam results, patient assessment evaluations, attendance reports, and student surveys for at least 4 years to meet ITLS CAPCE verification standards or longer if mandated by your country's education regulations.

## Lesson Maps

### Sample Course Timetables

The traditional ITLS Provider course runs lectures in the morning and skills in the afternoon over two days, following a format similar to that of ATLS and AHA courses. Some programs have adapted the schedule so that all lectures are completed on the first day, with skill stations scheduled for the morning of the second day. The testing then takes place on the afternoon of that second day.

ITLS does not specify a particular course agenda. Coordinators, instructors, and the medical director should assess the student group and available resources to decide which format best accomplishes the goals of the ITLS Provider course. ITLS requires either specific lectures or a case-based approach, depending on the course's length.

## Optional Lectures and Case Based Instruction

Any lecture within the ITLS course may be replaced, in whole or in part, by a structured case-based scenario. When case-based instruction is used, it must address the same learning objectives, core concepts, and critical decision-making elements as the corresponding lecture.

All **required chapters must be covered** during the course. Coverage of required chapters may occur through traditional lecture, case-based discussion, scenario-based application, skills integration, or a combination of these instructional methods. Lectures associated with **non-required chapters** may be shortened, modified, or removed entirely to allow additional instructional time for other chapters, skill stations, or case-based scenarios. Such adjustments may be made at the discretion of the Course Faculty and/or Medical Director, provided that overall course objectives, assessment standards, and ITLS certification requirements are maintained.

## Required Chapters

Chapter 1: **Approach to Trauma Patient**

Chapter 2: **ITLS Assessment**

Chapter 3: **Hemorrhage and Shock**

Chapter 4: **Airway and Ventilation Management**

Chapter 5: **Traumatic Cardiac Arrest Management**

Chapter 6: **Mass Casualty Incidents**



ITLS 1<sup>st</sup> Edition Provider Course Day 1 of 2

TIMING (MINUTES)	TOPIC	DELIVERY METHOD	TOPIC-SPECIFIC INSTRUCTION METHOD
	<i>Registration (Pre-Course Start)</i>		
30	<b>Understanding trauma, including the mechanism of injury (MOI)</b>	Lecture	
45	<b>ITLS trauma assessment</b>	Lecture	
15	<i>Break</i>		
45	<i>Skills: Primary Survey &amp; Rapid Trauma Assessment</i>	<i>Skill Station</i>	<i>Airway, breathing, circulation, disability, exposure</i>
45	<b>Hemorrhage and shock</b>	Lecture	<b><i>Shock recognition, hemorrhage control</i></b>
30	<b>Skills: Hemorrhage Control</b>	<i>Skill Station</i>	<b><i>Tourniquet application, wound packing, hemostatic dressings</i></b>
30	<b>Trauma airway</b>	Lecture	Airway hierarchy and decision-making
30	<b>Skills: Airway Management</b>	Skill Station	NPA, BVM, EGA, advanced airway demonstration
30	<i>Working Lunch – Q and Q Session Regarding AM sessions</i>		
45	<b>Chapter 5: Traumatic Cardiac Arrest</b>	Lecture/Scenario	<b><i>Case-based discussion, resuscitation priorities</i></b>
45	<b>Chapter 6: Mass Casualty Incidents</b>	Lecture	Triage principles
15	<i>Break</i>		
30	<b>Chapter 7: Traumatic Brain Injury</b>	Lecture	<b><i>Intracranial pressure, management priorities</i></b>
30	<b>Chapter 8: Spinal Trauma</b>	Lecture	<b><i>SMR principles</i></b>
15	<i>Questions &amp; Adjourn Day 1</i>		



**ITLS 1<sup>st</sup> Edition Provider Course Day #2**

<b>TIMING (MINUTES)</b>	<b>TOPIC</b>	<b>DELIVERY METHOD</b>	<b>TOPIC-SPECIFIC INSTRUCTION METHOD</b>
5	<b>Welcome and Intro to Day 2</b>	Lecture	
20	<b>Skills: Spinal Motion Restriction</b>	Skill Station	Collar application, log roll, vacuum mattress
20	<b>Chapter 9: Thoracic Trauma</b>	Lecture	Pneumothorax, flail chest
20	<b>Skills: Thoracic Interventions</b>	Skill Station	Chest seal, needle decompression
20	<b>Chapter 10: Abdominal &amp; Pelvic Trauma</b>	Lecture	FAST exam concepts, pelvic stabilization
20	<b>Skills: Pelvic Binding</b>	Skill Station	Binder application, stabilization
15	<i>Break</i>		
20	<b>Chapter 11: Extremity Trauma</b>	Lecture	Fractures, amputations
30	<b>Skills: Splinting &amp; Immobilization</b>	Skill	Long bone and joint immobilization
30	<i>Lunch</i>		
20	Chapter 12: Burns	Lecture	Burn classification, fluid resuscitation
20	<i>Chapter 13: Pediatric Trauma</i>	<i>Lecture</i>	Pediatric assessment triangle, trauma differences
20	Chapter 14: Geriatric Trauma	Lecture	Frailty, comorbidities
20	Chapter 15: Trauma in Pregnancy	Lecture	Physiologic differences, positioning
20	Chapter 16: Environmental Emergencies	Lecture	Hypothermia, heat injury, drowning
20	Chapter 17: Crush and Blast Injuries	Lecture	<b>Crush and Blast injuries</b>
20	Chapter 18: High Threat	Lecture	High Threat Environment
20	Chapter 19: Pain	Lecture	Pain Management
20	Chapter 20: Helicopter Transportation	Lecture	<i>Air Medical Considerations</i>
30	Patient Assessment Practice	Skill Station	
60	<b>Testing Scenarios &amp; Written Exam</b>	Assessment	Written Exam & Practical Testing
10	<i>Adjournment &amp; Exit</i>		



## ITLS 1<sup>st</sup> Edition Provider Course Recertification

TIMING (MINUTES)	TOPIC	DELIVERY METHOD	TOPIC-SPECIFIC INSTRUCTION METHOD
	<i>Registration (Pre-Course Start)</i>		
45	<b>Chapter 2: Patient Assessment</b>	Lecture	
45	<i>Skills: Primary Survey &amp; Rapid Trauma Assessment</i>	<i>Skill Station</i>	<i>Airway, breathing, circulation, disability, exposure</i>
45	<b>Chapter 3: Hemorrhage and Shock</b>	Lecture	<b>Shock recognition, hemorrhage control</b>
30	<b>Skills: Hemorrhage Control</b>	<i>Skill Station</i>	<b>Tourniquet application, wound packing, hemostatic dressings</b>
30	<b>Chapter 4: Airway and Ventilation Management</b>	Lecture	Airway hierarchy and decision-making
30	<b>Skills: Airway Management</b>	Skill Station	NPA, BVM, EGA, advanced airway demonstration
30	<i>Working Lunch – Q and Q Session Regarding AM sessions</i>		
60	<b>Testing Scenarios &amp; Written Exam</b>	Assessment	<b>Written Exam and Practical Exam</b>
10	<i>Adjournment &amp; Exit</i>		



**ITLS 1<sup>st</sup> Edition Provider Course  
Bridge Course**

<b>TIMING (MINUTES)</b>	<b>TOPIC</b>	<b>DELIVERY METHOD</b>	<b>TOPIC-SPECIFIC INSTRUCTION METHOD</b>
	<i>Registration (Pre-Course Start)</i>		
<b>45</b>	<b>Chapter 2: Patient Assessment</b>	Lecture	
<b>45</b>	<i>Skills: Primary Survey &amp; Rapid Trauma Assessment</i>	<i>Skill Station</i>	<i>Airway, breathing, circulation, disability, exposure</i>
<b>45</b>	<b>Chapter 3: Hemorrhage and Shock</b>	Lecture	Shock recognition, hemorrhage control
<b>30</b>	<b>Skills: Hemorrhage Control</b>	<i>Skill Station</i>	Tourniquet application, wound packing, hemostatic dressings
<b>30</b>	<b>Chapter 4: Airway and Ventilation Management</b>	Lecture	Airway hierarchy and decision-making.
<b>30</b>	<b>Skills: Airway Management</b>	Skill Station	NPA, BVM, EGA, advanced airway demonstration
<b>30</b>	<i>Working Lunch – Q and Q Session Regarding AM sessions</i>		
<b>30</b>	<b>Chapter 7: Traumatic Brain Injury</b>		Intracranial pressure, management priorities
<b>60</b>	<b>Patient Assessment Scenario Practice and Testing</b>	Assessment	Practical Testing
<b>30</b>	<b>Exam</b>	Assessment	Written Test
<b>15</b>	<i>Questions &amp; adjourn</i>		



Topic: Introduction & Course Overview Day 1		Session Type: Didactic, teacher-directed discussion	
Overall Objective: The student will be familiar with the agenda and expectations for the day.		Lesson Time: 15 minutes	Resources: PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Introductions and welcome	<ul style="list-style-type: none"> <li>• Introduce instructors and yourself</li> <li>• Review venue orientation: emergency exits, restrooms, fire drills, etc.</li> <li>• Ask students to introduce themselves, their background, and course expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Listen</li> <li>• Introduce self to faculty and peers</li> </ul>	
Identify the learning outcomes for the ITLS 1st Edition Course	<ul style="list-style-type: none"> <li>• State overall objectives of the course:               <ol style="list-style-type: none"> <li>1. Perform the ITLS Primary Survey</li> <li>2. Rapidly identify and manage life-threatening conditions</li> <li>3. Apply trauma care principles to adult, pediatric, geriatric, and pregnant patients</li> <li>4. Demonstrate competence in trauma skills (airway, hemorrhage control, spinal motion restriction, etc.)</li> <li>5. Integrate clinical decision-making in scenarios and patient assessment testing</li> <li>6. Prepare patients for safe and timely transport</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Listen and ask questions</li> </ul>	
Introduce format of the day	<ul style="list-style-type: none"> <li>• Review the daily agenda</li> <li>• Emphasize <b>hands-on, practical skills</b> and <b>case-based scenarios</b> as the primary learning methodology</li> </ul>	<ul style="list-style-type: none"> <li>• Listen and ask questions</li> </ul>	
Identify the requirements for successful completion	<ul style="list-style-type: none"> <li>• State course requirements:               <ul style="list-style-type: none"> <li>– Attend and participate in the full course</li> <li>– Successfully complete skill stations</li> <li>– Pass patient assessment scenario</li> <li>– Pass written exam (if required by local guidelines)</li> </ul> </li> <li>• Explain that certification requires demonstration of both knowledge and skills</li> </ul>	<ul style="list-style-type: none"> <li>• Listen and ask questions</li> </ul>	



Topic: Chapter 1 Approach to the Trauma Patient		Session Type: Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to recognize trauma as a disease, identify mechanisms and predictable patterns of injury, differentiate between intentional and unintentional trauma, and apply triage and MCI principles to improve patient outcomes		<b>Lesson Time:</b> 30 minutes	<b>Resources:</b> PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Understand trauma as a disease	<ul style="list-style-type: none"> <li>Present definition of trauma as a preventable disease; review global epidemiology and economic impact (WHO, CDC data)</li> </ul>	<ul style="list-style-type: none"> <li>Discuss local/community trauma burden; answer guiding questions</li> </ul>	
Understand the epidemiology of trauma	Show data slides with worldwide trauma mortality and morbidity; emphasize top causes (MVCs, falls, violence)	<ul style="list-style-type: none"> <li>Students identify top causes of trauma in their region; relate to personal experience</li> </ul>	
Describe the use of Emergency Medical Dispatch (EMD) and pre-arrival instructions, and the advantages they provide for improved patient outcomes	<ul style="list-style-type: none"> <li>Explain role of EMD and pre-arrival instructions; provide examples (bleeding control, CPR)</li> </ul>	<ul style="list-style-type: none"> <li>Students share examples of dispatch instructions; discuss pros/cons</li> </ul>	
Identify key concepts to distinguish the potential for injury based on the transfer of energy to the trauma patient	<ul style="list-style-type: none"> <li>Teach Newton's laws, the three collisions concept, kinetic energy formula (<math>\frac{1}{2}mv^2</math>) with diagrams</li> </ul>	<ul style="list-style-type: none"> <li>Students analyze crash photos and predict likely injuries based on damage patterns</li> </ul>	
Evaluate the risk of injury to a trauma patient based upon the mechanism of injury sustained by the patient	<ul style="list-style-type: none"> <li>Use case studies (fall from height, MVC, penetrating injury) to walk through MOI evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Students perform scene size-up, verbalize suspected injuries, and prioritize care</li> </ul>	
Categorize traumatic injury as intentional or unintentional with consideration of modification of assessment and treatment based on category	<ul style="list-style-type: none"> <li>Discuss abuse indicators (TEN-4 rule), mandatory reporting, and scene safety considerations</li> </ul>	<ul style="list-style-type: none"> <li>Role-play interview scenarios; discuss how intent changes care plan and scene approach</li> </ul>	
Apply MCI guidelines and a trauma triage system in techniques to decrease resource utilization and improve patient outcomes	<ul style="list-style-type: none"> <li>Explain START/JumpStart/START triage and ICS structure; demonstrate use of triage tags</li> </ul>	<ul style="list-style-type: none"> <li>Students practice sorting mock patients into triage categories using cards or scenarios</li> </ul>	



Topic: Chapter 2 ITLS Assessment		Session Type: Didactic, teacher-directed discussion	
Overall Objective: The student shall be able to perform a complete ITLS Patient Assessment — including scene size-up, initial assessment, rapid trauma survey, reassessment, and secondary survey — to rapidly identify and treat life threats, prioritize interventions, and determine appropriate transport decisions		Lesson Time: 45 min	Resources: PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Describe the steps of the ITLS Patient Assessment	<ul style="list-style-type: none"> <li>Present overview of the assessment sequence (Scene Survey → Initial Assessment → RTS → Reassessment → Secondary Survey); use flowchart</li> </ul>	<ul style="list-style-type: none"> <li>Students take notes, ask questions, discuss order and purpose</li> </ul>	
List the steps in each section of the ITLS Patient Assessment (Scene Size-Up, Initial Assessment, RTS, Reassessment Exam)	<ul style="list-style-type: none"> <li>Walk through each step using slides and figures; demonstrate C-ABCDE, DCAP-BLS-TIC, SAMPLE</li> </ul>	<ul style="list-style-type: none"> <li>Students verbally repeat steps, complete the worksheet, or practice recall drills</li> </ul>	
Describe when it is appropriate to conduct a Secondary Survey	<ul style="list-style-type: none"> <li>Explain the difference between the RTS (critical patient) and the Secondary Survey (non-critical); provide examples</li> </ul>	<ul style="list-style-type: none"> <li>Students identify when a secondary survey is appropriate in scenario prompts</li> </ul>	
Identify which patients have critical injuries that require prompt intervention and transport	<ul style="list-style-type: none"> <li>Review “Load &amp; Go” criteria: airway compromise, altered LOC, shock, abnormal chest findings, penetrating trauma</li> </ul>	<ul style="list-style-type: none"> <li>Students analyze case studies and determine transport priority</li> </ul>	
List the immediate life threats that should be identified in the ITLS Primary Survey, and which interventions should be performed	<ul style="list-style-type: none"> <li>Show Table 2-1 and teach interventions (hemorrhage control, airway management, chest seal, decompression)</li> </ul>	<ul style="list-style-type: none"> <li>Students verbalize life threats and appropriate interventions during discussion</li> </ul>	
Competently perform an ITLS Patient Assessment on a simulated trauma victim	<ul style="list-style-type: none"> <li>Run hands-on scenarios, supervise complete assessment from scene survey to transport decision</li> </ul>	<ul style="list-style-type: none"> <li>Students perform a full assessment on a manikin or a standardized patient with instructor feedback</li> </ul>	
Describe the steps of the ITLS Patient Assessment	<ul style="list-style-type: none"> <li>Present overview of the assessment sequence (Scene Survey → Initial Assessment → RTS → Reassessment → Secondary Survey); use flowchart</li> </ul>	<ul style="list-style-type: none"> <li>Students take notes, ask questions, discuss order and purpose</li> </ul>	
List the steps in each section of the ITLS Patient Assessment (Scene Size-Up, Initial Assessment, RTS, Reassessment Exam)	<ul style="list-style-type: none"> <li>Walk through each step using slides and figures; demonstrate C-ABCDE, DCAP-BLS-TIC, SAMPLE</li> </ul>	<ul style="list-style-type: none"> <li>Students verbally repeat steps, complete the worksheet, or practice recall drills</li> </ul>	
Competently perform an ITLS Patient Assessment on a simulated trauma victim	<ul style="list-style-type: none"> <li>Run hands-on scenarios, supervise complete assessment from scene survey to transport decision</li> </ul>	<ul style="list-style-type: none"> <li>Students perform a full assessment on manikin or standardized patient with instructor feedback</li> </ul>	



<b>Topic: Skills: Primary Survey &amp; Rapid Trauma Assessment</b>		<b>Session Type:</b> Skills Lab – Instructor-led demonstration followed by guided practice and evaluation	
<b>Overall Objective:</b> The student shall be able to competently perform a complete ITLS Primary Survey (C-ABCDE) and Rapid Trauma Survey on a simulated trauma patient, correctly identifying life threats, initiating appropriate interventions, and verbalizing transport decisions within the recommended time frame		<b>Lesson Time:</b> 30 minutes	<b>Resources:</b> ITLS Text, Simulation Lab/Manikins, PPE, Case Scenarios
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Identify steps of the ITLS Primary Survey (C-ABCDE)	Demonstrate step-by-step Primary Survey on manikin: Control bleeding, Airway (modified jaw thrust, adjuncts), Breathing, Circulation, Disability (AVPU), Expose/Prevent hypothermia	<ul style="list-style-type: none"> <li>Observe instructor demonstration; take notes; ask questions</li> </ul>	
Perform Primary Survey within 2 minutes	<ul style="list-style-type: none"> <li>Emphasize timing and prioritization; explain when to interrupt survey for immediate life threats (airway obstruction, exsanguinating bleed, TCA)</li> </ul>	<ul style="list-style-type: none"> <li>Practice timed surveys in small groups; verbalize findings and interventions</li> </ul>	
Recognize immediate life threats and initiate interventions	<ul style="list-style-type: none"> <li>Demonstrate tourniquet application, chest seal placement, BVM use, and needle decompression (if within scope)</li> </ul>	<ul style="list-style-type: none"> <li>Students perform interventions on manikins and task trainers; receive feedback</li> </ul>	
Describe and perform Rapid Trauma Survey (RTS)	<ul style="list-style-type: none"> <li>Review DCAP-BLS-TIC; demonstrate head-to-toe approach: head, neck, chest, abdomen, pelvis, extremities, back; brief history (SAMPLE)</li> </ul>	<ul style="list-style-type: none"> <li>Students perform RTS under instructor supervision; verbalize suspected injuries</li> </ul>	
Integrate teamwork and communication during assessment	<ul style="list-style-type: none"> <li>Model closed-loop communication during demo; assign roles to team members during scenario</li> </ul>	<ul style="list-style-type: none"> <li>Students practice delegating tasks, repeating orders, and maintaining team communication</li> </ul>	
Determine transport priority (“Load & Go”)	<ul style="list-style-type: none"> <li>Present criteria for high-risk MOI and critical findings; discuss destination decisions</li> </ul>	<ul style="list-style-type: none"> <li>Students verbalize transport decision and notify the “receiving facility” in the scenario</li> </ul>	



Topic: Chapter 3 Hemorrhage Control and Shock		Session Type: Lecture	
<b>Overall Objective:</b> The student shall be able to recognize and manage hemorrhage and shock, understand the underlying pathophysiology, differentiate between shock types, apply ITLS assessment principles, and perform interventions, including hemorrhage control, resuscitation, and preparation for rapid transport		<b>Lesson Time:</b> 45 minutes	<b>Resources:</b> PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Understand the pathophysiology of hemorrhage and other types of shock	<ul style="list-style-type: none"> <li>Present definitions and cellular effects of shock; review classifications: hypovolemic, distributive, obstructive, cardiogenic</li> </ul>	<ul style="list-style-type: none"> <li>Students discuss compensatory mechanisms (tachycardia, narrowed pulse pressure) and identify early vs late signs of shock</li> </ul>	
Describe various stages of shock	<ul style="list-style-type: none"> <li>Use Table 3-1 to review clinical indicators of Class I–IV hemorrhagic shock (blood loss %, HR, BP, mental status)</li> </ul>	<ul style="list-style-type: none"> <li>Students match scenarios or vital signs to the shock class; verbalize expected findings</li> </ul>	
Apply ITLS principles toward the assessment of patients suffering from hemorrhage or hemorrhagic shock	<ul style="list-style-type: none"> <li>Walk through ITLS Primary Survey with emphasis on C-ABCDE and early hemorrhage control; highlight load-and-go criteria</li> </ul>	<ul style="list-style-type: none"> <li>Students perform rapid assessment in simulation; verbalize priorities and interventions</li> </ul>	
Employ practice principles, interventions, techniques, and modalities involved in the management of patients suffering from hemorrhage or hemorrhagic shock	<ul style="list-style-type: none"> <li>Demonstrate direct pressure, wound packing, tourniquet placement, pelvic binder, &amp; IV/IO access; discuss TXA and permissive hypotension</li> </ul>	<ul style="list-style-type: none"> <li>Students practice interventions on task trainers/manikins; document time of tourniquet application and priorities</li> </ul>	
Appreciate the potential of Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) in patients suffering from hemorrhage or hemorrhagic shock	<ul style="list-style-type: none"> <li>Explain the concept of REBOA, zones of occlusion, indications, and limitations</li> </ul>	<ul style="list-style-type: none"> <li>Students discuss the benefits/risks of REBOA</li> </ul>	
Employ practice principles, interventions, techniques, and modalities involved in the management of patients suffering from hemorrhage or hemorrhagic shock	<ul style="list-style-type: none"> <li>Demonstrate direct pressure, wound packing, tourniquet placement, pelvic binder application, and IV/IO access; discuss TXA use and permissive hypotension</li> </ul>	<ul style="list-style-type: none"> <li>Students practice interventions on task trainers/manikins; document time of tourniquet application and verbalize treatment priorities</li> </ul>	
Appreciate the potential of Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) in patients suffering from hemorrhage or hemorrhagic shock	<ul style="list-style-type: none"> <li>Explain the concept of REBOA, zones of occlusion, indications, and limitations</li> </ul>	<ul style="list-style-type: none"> <li>Students discuss the benefits/risks of REBOA and when to prepare a patient for rapid transport to a REBOA-capable facility</li> </ul>	



<b>Topic: Chapter 4 Airway and Ventilatory Management</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to recognize respiratory compromise and perform interventions, including chest seal application and needle decompression, according to the high-threat phase of care.		<b>Lesson Time:</b> 30 minutes	<b>Resources</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
List the criteria for the diagnosis of tension pneumothorax and open pneumothorax in the high-threat environment	<ul style="list-style-type: none"> <li>Recognize the significance of tension pneumothorax in terms of possibly preventable combat deaths</li> <li>List criteria for tension pneumothorax</li> <li>List criteria for open pneumothorax</li> </ul>	<ul style="list-style-type: none"> <li>Identify the presence of tension pneumothorax based upon clinical parameters</li> <li>Ask questions</li> </ul>	
Describe the initial management of tension pneumothorax and open pneumothorax in the high-threat environment	<ul style="list-style-type: none"> <li>Review needle decompression in both the AAL and MCL locations</li> <li>Depending on provider level, discuss finger thoracostomy (pp 97-98)</li> <li>Review application of chest seals</li> <li>Discuss concerns with the use of unvented chest seals</li> <li>Answer questions</li> </ul>	<ul style="list-style-type: none"> <li>Describe anatomic locations for needle decompression</li> <li>Identify development of tension pneumothorax as a concern with unvented chest seals</li> <li>Ask questions</li> </ul>	



<b>Topic: ITLS-5 Skills: Hemorrhage Control</b>		<b>Session Type:</b> Skills Lab – Instructor demonstration followed by guided hands-on practice & evaluation	
<b>Overall Objective:</b> The student shall be able to rapidly recognize life-threatening external hemorrhage, select the appropriate control technique, and correctly perform direct pressure, wound packing (with and without hemostatic agents), tourniquet application, and pelvic stabilization in a simulated trauma setting		<b>Lesson Time:</b> 30 minutes	<b>Resources</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Recognize life-threatening external hemorrhage and prioritize control (Step “C” of C-ABCDE)	<ul style="list-style-type: none"> <li>Present concept of exsanguinating hemorrhage as first priority; discuss “Stop the Bleed” principles; show examples of compressible vs. non-compressible bleeding</li> </ul>	<ul style="list-style-type: none"> <li>Students identify which wounds require immediate intervention during case scenarios</li> </ul>	
Demonstrate proper direct pressure technique	<ul style="list-style-type: none"> <li>Show point pressure with gloved finger/hand; maintain <math>\geq 5</math> minutes of uninterrupted pressure</li> </ul>	<ul style="list-style-type: none"> <li>Students practice direct pressure on the task trainer; the instructor observes the technique</li> </ul>	
Perform wound packing correctly (standard and hemostatic gauze)	<ul style="list-style-type: none"> <li>Demonstrate wound exposure, packing wound, maintaining constant pressure, and pressure dressing</li> </ul>	<ul style="list-style-type: none"> <li>Students perform wound packing on trainer; verbalize need for reassessment</li> </ul>	
Apply a commercial tourniquet for extremity hemorrhage	<ul style="list-style-type: none"> <li>Demonstrate step-by-step tourniquet application (high and tight placement, tighten until bleeding stops, secure windlass, document time)</li> </ul>	<ul style="list-style-type: none"> <li>Students apply a tourniquet on themselves/a partner, or a manikin; verify pulse elimination</li> </ul>	
Apply a second tourniquet when bleeding persists	<ul style="list-style-type: none"> <li>Demonstrate side-by-side placement for uncontrolled extremity bleeding</li> </ul>	<ul style="list-style-type: none"> <li>Students practice adding a second tourniquet and reassessing</li> </ul>	
Apply a junctional tourniquet (if available)	<ul style="list-style-type: none"> <li>Demonstrate placement for groin/axillary hemorrhage, inflation, and securing</li> </ul>	<ul style="list-style-type: none"> <li>Students practice placement on the simulator if available</li> </ul>	
Apply a pelvic binder for a suspected pelvic fracture	<ul style="list-style-type: none"> <li>Demonstrate proper positioning over the greater trochanters</li> </ul>	<ul style="list-style-type: none"> <li>Students apply pelvic binder on manikin; check stability</li> </ul>	
Discuss adjuncts: TXA, permissive hypotension, hypothermia prevention	<ul style="list-style-type: none"> <li>Review indications for TXA (within 3 hrs), SBP targets (<math>\geq 90</math> mmHg unless TBI), and the importance of keeping the patient warm</li> </ul>	<ul style="list-style-type: none"> <li>Students verbalize when to give TXA, when to activate rapid transport, and what warming techniques they would use</li> </ul>	



<b>Topic: Skills: Airway Management</b>		<b>Session Type:</b> Skills, Discussion	
<p><b>Overall Objective:</b> The student shall be able to demonstrate the basic and advanced airway interventions, including recovery position, airway positioning, NPA, OPA, BVM, EGA, and surgical airway.</p> <p><b>All students must demonstrate the ability to correctly open an airway and perform BVM during this section of the course.</b></p>		<p><b>Lesson Time:</b> 45 minutes</p>	<p><b>Resources</b> ITLS Textbook Airway manikins NPAs, OPAs, EGAs (i-gel®, King LTS-D™, LMA) BVMs with a manometer and reservoir bags Suction equipment (Yankauer and large-bore catheters) Lubricant, PPE, and ventilation feedback devices</p>
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Demonstrate manual airway maneuvers	<ul style="list-style-type: none"> <li>• Demonstrate proper jaw-thrust and head-tilt (when no spinal injury is suspected).</li> <li>• Emphasize spinal motion restriction during airway management.</li> <li>• Instruct students on hand placement and body mechanics.</li> </ul>	<ul style="list-style-type: none"> <li>• Practice jaw-thrust and airway opening on manikin.</li> <li>• Seek feedback on hand placement and technique.</li> </ul>	
Demonstrate suctioning and airway clearance	<ul style="list-style-type: none"> <li>• Demonstrate proper use of large-bore suction devices.</li> <li>• Emphasize clearing visible debris, vomitus, or blood before BVM.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform suctioning on the manikin.</li> <li>• Practice clearing the airway before ventilating.</li> </ul>	
Demonstrate sizing and insertion of airway adjuncts	<ul style="list-style-type: none"> <li>• Review selection and insertion techniques for OPA and NPA.</li> <li>• Discuss contraindications (e.g., facial fracture for NPA).</li> </ul>	<ul style="list-style-type: none"> <li>• Select correct size OPA/NPA and insert properly.</li> <li>• Verify airway patency.</li> </ul>	



<p>Demonstrate proper BVM technique</p>	<ul style="list-style-type: none"> <li>• Demonstrate single-rescuer and two-rescuer BVM methods.</li> <li>• Show use of manometer if available to limit pressure (&lt; 20 cm H<sub>2</sub>O non-intubated).</li> <li>• Coach hand position, seal, and rate (10/min adult).</li> </ul>	<ul style="list-style-type: none"> <li>• Perform BVM ventilation as a single rescuer and a two-rescuer.</li> <li>• Observe manometer pressure and chest rise.</li> <li>• Adjust rate and volume based on feedback.</li> </ul>
<p>Demonstrate extraglottic airway placement</p>	<ul style="list-style-type: none"> <li>• Explain indications for EGA use.</li> <li>• Demonstrate sizing, insertion, and confirmation with ET<sub>CO</sub><sub>2</sub> (“First Breath Square”).</li> </ul>	<ul style="list-style-type: none"> <li>• Perform EGA placement on manikin.</li> <li>• Confirm placement with ET<sub>CO</sub><sub>2</sub> and chest rise.</li> </ul>
<p>Review advanced/surgical airway (as appropriate)</p>	<ul style="list-style-type: none"> <li>• Demonstrate procedure steps for needle and/or surgical cricothyrotomy (if in scope).</li> </ul>	<ul style="list-style-type: none"> <li>• Observe or perform procedure under supervision.</li> <li>• Ask questions and review landmarks.</li> </ul>



Topic: Chapter 5 Traumatic Cardiac Arrest		Session Type: Lecture	
<b>Overall Objective:</b> The student shall be able to identify the treatable causes of traumatic cardiopulmonary arrest (TCPA), describe appropriate management strategies, and recognize when resuscitation should be withheld or terminated according to current ITLS and national guidelines.		<b>Lesson Time:</b> 45 minutes	<b>Resources:</b> PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Define traumatic cardiac arrest (TCA)	<ul style="list-style-type: none"> <li>• Begin with PowerPoint introduction and case vignette.</li> <li>• Define TCA as cardiopulmonary arrest resulting from trauma mechanisms rather than medical causes.</li> <li>• Emphasize that survival is rare but possible with rapid, focused interventions</li> </ul>	<ul style="list-style-type: none"> <li>• Listen, take notes, and ask clarifying questions.</li> <li>• Share prior field experiences if applicable.</li> </ul>	
Identify the common causes of TCA	<ul style="list-style-type: none"> <li>• Review slide on causes: airway obstruction, hypoxemia, tension pneumothorax, pericardial tamponade, hypovolemia (“empty heart syndrome”), and severe head trauma.</li> <li>• Reinforce the importance of using the <b>ITLS Primary Survey</b> to find and correct reversible causes.</li> </ul>	<ul style="list-style-type: none"> <li>• List potential causes and group by airway, breathing, and circulation.</li> <li>• Participate in a guided discussion.</li> </ul>	
Differentiate between salvageable and unsalvageable patients	<ul style="list-style-type: none"> <li>• Review criteria for withholding resuscitation (e.g., decapitation, dependent lividity, rigor mortis).</li> <li>• Use NAEMSP/ACS-COT Prehospital Trauma Arrest Guidelines.</li> <li>• Discuss risk to providers from futile resuscitation attempts.</li> </ul>	<ul style="list-style-type: none"> <li>• Follow along with the PowerPoint algorithm slides.</li> <li>• Identify which steps are performed first in the given case scenarios.</li> </ul>	
Describe the management priorities for TCA	<ul style="list-style-type: none"> <li>• Review the <b>ITLS Primary Survey</b> as the structure for intervention.</li> <li>• Demonstrate sequence: airway → breathing → circulation.</li> <li>• Emphasize rapid correction of reversible causes and early transport.</li> <li>• Highlight that <b>airway, ventilation, and hemorrhage control</b> take priority over chest compressions until causes are corrected.</li> </ul>	<ul style="list-style-type: none"> <li>• Follow along with the PowerPoint algorithm slides.</li> <li>• Identify which steps are performed first in the given case scenarios.</li> </ul>	
Discuss airway and breathing management considerations	<ul style="list-style-type: none"> <li>• Review slides on airway management: avoid delays, EGA vs. ETT are equivalent in survival.</li> <li>• Reinforce avoiding hyperventilation (8 breaths/min, 750 mL tidal volume).</li> <li>• Discuss using <b>capnography</b> to confirm</li> </ul>	<ul style="list-style-type: none"> <li>• Observe example ventilation on manikin or in video demo.</li> <li>• Practice interpreting capnography waveforms on sample traces.</li> </ul>	



	placement and monitor perfusion.	
Discuss circulation and volume management	<ul style="list-style-type: none"> <li>• Review key slides: control external hemorrhage, IV/IO access, administer fluids en route.</li> <li>• Reinforce that transport should not be delayed for IV initiation.</li> <li>• Emphasize massive transfusion protocols if applicable.</li> </ul>	<ul style="list-style-type: none"> <li>• Participate in group discussion about rapid transport vs. on-scene treatment.</li> <li>• Identify interventions that can occur en route.</li> </ul>
Discuss special populations	<ul style="list-style-type: none"> <li>• Address pediatric TCA (always attempt resuscitation).</li> <li>• Review isolated head injuries (often fatal but attempt airway and oxygenation).</li> <li>• Discuss exceptions: drowning, lightning, hypothermia</li> </ul>	<ul style="list-style-type: none"> <li>• Review case examples and ask questions about differences in approach.</li> </ul>
Summarize key learning points	<ul style="list-style-type: none"> <li>• Use final summary slide to reinforce: <ul style="list-style-type: none"> <li>– Identify reversible causes.</li> <li>– Correct immediately.</li> <li>– Follow guidelines for withholding/termination.</li> <li>– Do not delay transport.</li> <li>– Always perform thorough reassessment.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Review summary with instructor.</li> <li>• Ask final questions and prepare for next session or skills integration.</li> </ul>



Topic: Chapter 6 Mass Casualty Incidents		Session Type: Didactic, teacher-directed discussion	
<p><b>Overall Objective:</b> The student shall be able to describe the concepts of disaster management and mass-casualty incidents (MCI), demonstrate understanding of the Incident Command System (ICS) structure, and apply the START triage scheme to classify patients by priority of care.</p>		<p><b>Lesson Time:</b> 45 minutes</p>	<p><b>Resources</b> PPT</p>
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Compare and contrast the definitions of <i>disaster</i> and <i>multicausality incident (MCI)</i>	<ul style="list-style-type: none"> <li>Facilitate discussion on real-world examples of disasters vs. MCIs</li> <li>Review FEMA definition of disaster</li> <li>Use examples to demonstrate when an EMS system enters “disaster mode.”</li> </ul>	<ul style="list-style-type: none"> <li>Participate in discussion</li> <li>Share experiences or local examples</li> <li>Identify differences in how each affects EMS response</li> </ul>	
Define the term <i>span of control</i> and explain its role within ICS	<ul style="list-style-type: none"> <li>Explain concept using ratio 1:3–1:7 under NIMS</li> <li>Draw or project a basic ICS structure on board</li> <li>Discuss why exceeding span of control decreases efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Take notes</li> <li>Identify who their supervisor would be in various response levels</li> <li>Build an ICS structure on the board or worksheet</li> </ul>	
Describe the five major ICS functions: Command, Operations, Planning, Logistics, and Finance/Administration	<ul style="list-style-type: none"> <li>Review each function’s purpose using PowerPoint</li> <li>Discuss how EMS fits into the Command and Operations sections</li> <li>Highlight modular and flexible nature of ICS</li> </ul>	<ul style="list-style-type: none"> <li>Match functions to real-world EMS tasks</li> <li>Participate in group Q&amp;A</li> <li>Identify how EMS integrates with other agencies</li> </ul>	
Explain the role of EMS within an MCI	<ul style="list-style-type: none"> <li>Discuss EMS responsibilities for Safety, Organization, and Communication</li> <li>Review the components of the medical branch (Triage, Treatment, Transport, Staging, Medical Director)</li> </ul>	<ul style="list-style-type: none"> <li>Map out EMS branch structure</li> <li>Identify their role within MCI response flow</li> </ul>	
Describe and apply the START Triage Scheme	<ul style="list-style-type: none"> <li>Present START triage algorithm using slides</li> <li>Discuss decision points: global sorting, individual assessment, life-saving interventions</li> <li>Use sample patients or cards for interactive demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Practice classifying patients into categories (Immediate, Delayed, Minimal, Expectant, Dead)</li> <li>Engage in small-group triage exercise</li> <li>Perform mock triage</li> <li>Present decisions and justify reasoning</li> <li>Reflect on emotional and ethical challenges</li> </ul>	



Classify patients based on priority need for treatment	<ul style="list-style-type: none"> <li>• Conduct a short tabletop scenario or simulation using triage tags</li> <li>• Review rationale behind each classification</li> <li>• Discuss “greatest good for greatest number”</li> </ul>	<ul style="list-style-type: none"> <li>• Perform mock triage</li> <li>• Present decisions and justify reasoning</li> <li>• Reflect on emotional and ethical challenges</li> </ul>
Demonstrate understanding of tagging systems and color coding	<ul style="list-style-type: none"> <li>• Review local or regional tagging system</li> <li>• Show physical tags (if available)</li> <li>• Emphasize documentation and communication</li> </ul>	<ul style="list-style-type: none"> <li>• Identify tag colors and meanings</li> <li>• Participate in tagging exercise</li> </ul>



<b>Topic: Chapter 7 Traumatic Brain Injury</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to identify the mechanisms, pathophysiology, assessment findings, and management principles of head trauma and traumatic brain injury, including the prevention of secondary brain injury and the appropriate use of airway and circulatory interventions		<b>Lesson Time:</b> 30 minutes	<b>Resources:</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Describe basic head and brain anatomy relevant to trauma.	Review scalp and skull structure using slides or a model. Emphasize the rough interior of the skull and risk for contusion/laceration.	Observe models and label structures. Discuss why the location of impact changes the injury pattern.	
Identify and differentiate types of head injuries, including scalp wounds, skull fractures, and basal skull fractures.	Present images and clinical signs. Highlight indicators of basal skull fracture (Battle sign, raccoon eyes, CSF leak).	Match visual signs to injury types. Discuss field management priorities.	
Explain the mechanisms and classification of primary brain injuries (concussion, contusion, hematoma, hemorrhage, compression, diffuse axonal injury).	Define and review each type of primary injury. Illustrate coup-contrecoup and diffuse axonal injury using diagrams.	Compare patient presentations. Work in pairs to classify sample injury scenarios.	
Recognize and describe the mechanisms of secondary brain injury, including hypoxia, hypotension, and increased intracranial pressure (ICP).	Explain hypoxia, hypotension, and ICP effects. Review normal MAP, ICP, and CPP values and formula ( $CPP = MAP - ICP$ ).	Calculate CPP using example vitals. Identify early vs. late signs of ICP increase.	
Discuss assessment of the traumatic brain injury patient, including GCS, pupil assessment, and vital-sign trends.	Demonstrate rapid neuro assessment and explain why AVPU is insufficient.	Practice GCS scoring with case examples. Identify trends that signal deterioration.	
Describe management priorities in preventing secondary brain injury, including oxygenation, perfusion, and temperature control.	Emphasize maintaining $SpO_2 > 94\%$ , $SBP > 90$ mmHg, normocapnia, and normothermia. Discuss rapid transport principles ("time is brain").	Develop a brief treatment plan. Participate in discussion on prehospital priorities.	
Explain airway and ventilation management for TBI patients, including rapid sequence intubation (RSI) considerations and avoidance of hypotension.	Review airway positioning (jaw thrust), suctioning, and RSI medications (Etomidate, Ketamine, Rocuronium).	Identify indications for RSI. Role-play airway sequence decision-making.	
Discuss circulation and perfusion goals, emphasizing maintenance of systolic blood pressure $> 90$ mmHg and rapid transport.	Explain need to maintain $SBP > 90$ mmHg. Emphasize avoidance of hypotension as "the last nail in the coffin."	Apply to case: choose appropriate fluids/pressors. Debate "load & go vs. stay & play."	
Describe the use and value of non-invasive monitoring of cerebral blood flow (e.g., transcranial Doppler – TCD).	Introducing concept and limitations in prehospital settings.	Discuss integration with vital-sign monitoring.	



Recognize Cushing's Triad and outline appropriate management priorities.	Explain pathophysiology and vital-sign changes. Demonstrate supportive interventions.	Identify Cushing's Triad on sample monitor readouts.
Integrate airway, breathing, and circulation priorities into a case-based scenario to demonstrate comprehensive management of the TBI patient.	Facilitate group case discussion linking findings to ITLS primary and secondary surveys.	Apply knowledge to classify severity and present the management sequence to peers.

<b>Topic: Day 1 Questions/Adjournment</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student will be given an opportunity to review Day 1 of the course.		<b>Lesson Time:</b> 5 minutes	<b>Resources:</b>
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Wrap up	<ul style="list-style-type: none"> <li>• Ensure no injuries.</li> <li>• Review comprehension</li> <li>• Answer questions</li> </ul>	<ul style="list-style-type: none"> <li>• Review</li> <li>• Ask questions</li> </ul>	



<b>Topic: Introduction &amp; Course Overview Day 2</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student will be familiar with the agenda and expectations for the day.		<b>Lesson Time:</b> 5 minutes	<b>Resources:</b>
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Introductions and welcome	<ul style="list-style-type: none"> <li>• Ensure no injuries.</li> <li>• Review schedule</li> <li>• Answer questions</li> </ul>	<ul style="list-style-type: none"> <li>• Listen</li> <li>• Ask questions</li> </ul>	



<b>Topic: Spinal Motion Restriction</b>		<b>Session Type:</b> Skill Station	
<b>Overall Objective:</b> The student shall be able to identify the importance of Spinal Motion Restriction.		<b>Lesson Time:</b> 20 minutes	<b>Resources:</b> Cervical Collar Vacuum Mattress Scoop Stretcher
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Explain the principles and indications for spinal motion restriction (SMR).	Review ITLS and current evidence on selective SMR use. Discuss difference between immobilization and motion restriction.	Participate in discussion. Identify indications and contraindications for SMR.	
Demonstrate assessment of the patient for suspected spinal injury.	Show assessment sequence: scene size-up, mechanism of injury, neurological exam, and motor/sensory check.	Perform focused assessment on partner or manikin. Identify findings that warrant SMR.	
Demonstrate proper measurement and application of a cervical collar.	Demonstrate collar sizing: measure from trapezius to mandible; show application maintaining inline stabilization.	Practice sizing and applying a collar on partner/manikin under instructor supervision.	
Demonstrate coordinated log roll technique while maintaining spinal alignment.	Explain team roles: leader at head maintains control and gives commands. Demonstrate roll onto side and back with alignment maintained.	Perform log roll as team member and as leader. Emphasize communication and safety.	
Discuss or Demonstrate placement of vacuum mattress under patient using log roll or lift-slide technique.	Show correct setup, positioning, and evacuation of air to achieve form-fit immobilization. Reinforce maintaining neutral alignment.	Work in teams to practice lifting, positioning, and securing patients in vacuum mattress.	
Demonstrate head and torso stabilization after positioning on vacuum mattress.	Review securing sequence: trunk first, then pelvis, then legs, ending with head blocks or built-in stabilization.	Perform final stabilization sequence ensuring patient comfort and airway access.	
Evaluate team communication and safety during SMR procedures.	Observe teams and provide feedback on leadership, communication, and safety awareness.	Rotate through roles (team leader, rescuer, airway, equipment) to reinforce teamwork.	
Demonstrate patient transfer from ground to stretcher using SMR devices.	Demonstrate lift and load techniques minimizing spinal movement. Reinforce reassessment after transfer.	Perform transfer with instructor coaching. Re-evaluate collar position and spinal alignment.	



<b>Topic: Chapter 9 Thoracic Trauma</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to identify, assess, and manage life-threatening and potentially life-threatening thoracic injuries through early recognition, rapid intervention, and application of decompression or airway management techniques when indicated.		<b>Lesson Time:</b> 20 minutes	<b>Resources:</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Discuss the pathophysiology of thoracic trauma including hypoxia, hypoperfusion, and compromised respiratory mechanics.	Explain how thoracic trauma leads to hypoxia and circulatory compromise. Use case examples to illustrate mechanisms.	Participate in discussion and identify how physiological changes affect patient presentation.	
Identify mechanisms of injury (blunt, penetrating, and combination) and how they influence injury patterns.	Use scenarios such as MVCs, falls, and gunshot wounds to connect MOI with injury type.	Match injury types with likely mechanisms in small group activity.	
Recognize and describe the “Lethal Six” (immediate life threats).	Present slide with airway obstruction, flail chest, open pneumothorax, massive hemothorax, tension pneumothorax, and cardiac tamponade. Explain key recognition points.	Take notes and identify early signs of each condition.	
Recognize and describe the “Hidden Six” (potentially life-threatening injuries).	Review blunt cardiac injury, aortic rupture, tracheobronchial injury, diaphragmatic tear, pulmonary contusion, and blast injuries.	Participate in group identification exercise linking findings to the Hidden Six.	
Explain assessment priorities for thoracic trauma patients.	Review scene size-up, primary and secondary survey, and use of E-FAST ultrasound.	Perform mock assessment using trauma sequence on simulated patient.	
Identify and manage airway obstruction caused by thoracic trauma.	Demonstrate suctioning, OPA/NPA, and advanced airway techniques as indicated.	Practice opening airways and maintaining oxygenation on manikin.	
Discuss recognition and management of flail chest.	Show video or manikin demo of paradoxical chest movement. Explain oxygenation, pain control, and use of positive pressure ventilation.	Observe demonstration and discuss patient handling considerations.	
Identify types of pneumothoraces (simple, open, tension) and appropriate management.	Review recognition signs and indications for occlusive dressing, chest seal, or decompression.	Classify example cases and discuss treatment priorities.	



Demonstrate understanding of decompression techniques (needle or finger thoracostomy).	Discuss anatomical landmarks: 2nd ICS midclavicular and 4th–5th ICS anterior axillary line. Demonstrate on trainer.	Practice locating landmarks and simulating decompression under supervision.
Recognize and manage massive hemothorax and cardiac tamponade.	Explain recognition signs (Beck's Triad, dullness to percussion) and discuss management priorities including rapid transport and volume resuscitation.	Participate in case discussion on prioritizing interventions.
Discuss additional thoracic injuries (tracheobronchial, aortic rupture, diaphragmatic tear, blast injuries, impaled objects, traumatic asphyxia).	Review each injury's unique presentation and prehospital considerations.	Apply knowledge to identify likely injuries in case-based MOI scenarios.
Discuss the importance of early recognition and rapid intervention for thoracic trauma.	Reinforce load-and-go decision-making, early decompression, and rapid transport.	Summarize key priorities and debrief with peers.



<b>Topic: Thoracic Interventions</b>		<b>Session Type:</b> Skill Station	
<b>Overall Objective:</b> The student shall be able to demonstrate correct management of thoracic injuries through the application of a chest seal for open pneumothorax and perform needle decompression for tension pneumothorax following current ITLS and evidence-based guidelines.		<b>Lesson Time:</b> 20 minutes	<b>Resources:</b> <b>Chest Seal Needle Decompression Trainer</b>
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Review indications and contraindications for chest seal application.	Discuss mechanism of open pneumothorax and “sucking chest wound.” Demonstrate identification of wound >3 cm and proper management technique.	Observe demonstration and identify key signs of open pneumothorax.	
Demonstrate proper placement of an occlusive or vented chest seal.	Show step-by-step application on trainer: expose chest, wipe area, apply seal during exhalation, ensure seal adhesion. Emphasize avoiding taping all four sides.	Practice applying chest seal to simulated patient while maintaining body substance isolation and communication with team.	
Review pathophysiology and recognition of tension pneumothorax.	Discuss progressive respiratory distress, tracheal deviation (late), and absent breath sounds.	Identify assessment findings consistent with tension pneumothorax on case scenario.	
Demonstrate correct site identification and technique for needle decompression.	Explain anatomical landmarks: 2nd intercostal space, midclavicular line (anterior) or 4th–5th intercostal space, anterior axillary line (lateral). Demonstrate insertion angle and depth.	Locate landmarks and perform simulated needle decompression using model or task trainer under instructor supervision.	
Demonstrate post-procedure management and reassessment.	Emphasize need for immediate reassessment of breath sounds, oxygenation, and vital signs following decompression.	Reassess simulated patient and report findings to instructor or “receiving facility.”	
Demonstrate teamwork, communication, and safety during thoracic interventions.	Observe student interactions and provide corrective feedback during skill performance.	Work in teams to perform coordinated thoracic interventions while maintaining patient safety and sterile technique.	



Topic: Chapter 10 Abdominal & Pelvic Trauma		Session Type: Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to identify the anatomy, mechanisms, assessment findings, and management priorities for patients with abdominal and pelvic trauma, recognizing life-threatening injuries and applying appropriate prehospital interventions.		<b>Lesson Time:</b> 20 minutes	<b>Resources:</b> PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Describe the anatomy of the abdomen and pelvis and correlate the mechanism of injury with at-risk organs.	Review anatomical regions and organs using diagrams. Explain solid vs. hollow organ injury patterns.	Identify key organs at risk from blunt vs. penetrating mechanisms.	
Explain mechanisms of abdominal trauma and associated injury patterns.	Discuss blunt vs. penetrating trauma (MVC, falls, GSWs, stabbings). Use cases to highlight MOI clues.	Classify examples of MOI and predict possible organ injuries.	
Discuss the assessment of the abdomen and pelvis in trauma patients.	Demonstrate inspection, palpation, and recognition of signs (Cullen's, Grey Turner's, seatbelt sign). Emphasize ongoing reassessment.	Practice simulated assessment on a partner or a manikin. Document and report findings.	
Identify findings that indicate potential threats to life.	Discuss hypotension, tachycardia, abdominal tenderness, distention, and pain in pelvic compression.	Correlate findings with possible internal bleeding sources.	
Explain special considerations for patients on anticoagulants or antiplatelet therapy.	Review how medications (Plavix®, Eliquis®, Xarelto®) increased risk for hemorrhage.	Identify medication names and relate them to the increased risk of bleeding.	
Recognize and manage evisceration injuries.	Demonstrate covering with a moist sterile dressing and an occlusive layer (IV bag/Mylar). Emphasize not to replace contents.	Perform simulated evisceration management and verbalize rationale.	
Recognize and manage impaled objects in the abdomen or pelvis.	Demonstrate stabilization and emphasize that objects should not be removed except to manage airway obstruction.	Practice stabilizing an impaled object using gauze and securing the area with appropriate materials.	
Discuss management priorities for patients with abdominal trauma.	Review IV access, TXA administration, permissive hypotension, and blood transfusion principles.	Participate in a discussion on resuscitation priorities and potential pitfalls associated with excessive crystalloid administration.	
Describe pelvic anatomy and mechanisms of injury.	Explain pelvic ring structure, fracture patterns, and bleeding potential.	Identify pelvic fracture mechanisms based on case examples.	
Demonstrate pelvic stabilization techniques.	Demonstrate the use of a commercial binder or an improvised sheet wrap. Reinforce internal rotation of feet.	Practice application of pelvic binder and confirm correct placement.	
Describe the role of E-FAST or FAST exam in prehospital care.	Show sample images or video of the E-FAST exam; discuss its diagnostic value.	Interpret positive/negative E-FAST findings and relate to transport urgency.	



Discuss the considerations for rapid transport and destination decisions.	Reinforce “unstable patient = rapid transport.” Discuss trauma system access and communication.	Apply load-and-go principles in the scenario and select the appropriate destination.
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<b>Topic: Chapter 11 Extremity Trauma</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to recognize, assess, stabilize, and manage extremity trauma, including fractures, dislocations, open wounds, amputations, and vascular injuries—while preventing complications such as hemorrhage, compartment syndrome, and crush injury.		<b>Lesson Time:</b> 20 minutes	<b>Resources:</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Recognize the scope and types of extremity trauma.	Discuss common mechanisms and examples of musculoskeletal trauma in EMS.	Identify examples of extremity trauma and discuss priorities during the primary survey.	
Describe the pathophysiology of fractures, dislocations, and open wounds.	Review fracture/dislocation mechanisms and associated complications (neurovascular damage, fat emboli).	Label fracture types on skeletal diagrams and correlate the mechanism to the injury.	
Identify life-threatening hemorrhage in extremity trauma.	Discuss direct pressure, wound packing, tourniquets, and hemostatic agents.	Demonstrate hemorrhage control using tourniquet and wound packing trainers.	
Discuss the management of amputations.	Review stabilization, hemorrhage control, and handling of amputated parts.	Practice the packaging of the amputated part and stabilization of the residual limb.	
Identify neurovascular injuries and their significance.	Explain pulse, motor, and sensory (PMS) checks and when to reassess.	Perform and document PMS checks before and after immobilization.	
Recognize and manage compartment syndrome	Explain “5 Ps” and the physiology behind compartment pressure increase. Review crush injury and rhabdomyolysis risks.	Identify findings consistent with compartment syndrome in scenarios. Discuss management priorities.	
Recognize and manage crush injury.			
Demonstrate proper splinting techniques for fractures and dislocations.	Review general splinting steps: expose, align if needed, immobilize joints above and below, reassess PMS.	Practice splinting upper and lower extremities using various devices.	
Explain indications and contraindications for traction splinting.	Demonstrate the traction splint setup and application. Discuss complications and contraindications.	Apply a traction splint on a manikin or partner with supervision.	
Discuss pain management strategies in extremity trauma.	Review pharmacologic (opioids, ketamine) and nonpharmacologic (positioning, ice, splinting) options.	Develop and present a patient care plan, including pain management and reassessment.	
Recognize management priorities for pelvic injuries.	Demonstrate placement of pelvic binder or improvised sheet. Review the mechanism and bleeding potential.	Practice pelvic stabilization and internal rotation of feet on the manikin.	
Identify key considerations for upper and lower extremity injuries (shoulder, elbow,	Present examples of the mechanism and appearance. Review immobilization	Discuss proper splinting positions for different joints and perform	



wrist, hip, knee, tib/fib, hand/foot).	positions of comfort.	simulated immobilization.
Apply ITLS assessment and treatment sequence to an extremity trauma case.	Facilitate case-based discussion linking ABCDE, PMS, and splinting priorities.	Perform rapid assessment and management steps in small group simulation.



<b>Topic: Skills Splinting &amp; Immobilization</b>		<b>Session Type:</b> Skill	
<b>Overall Objective:</b> The student shall be able to demonstrate proper immobilization of long bone and joint injuries using appropriate splinting techniques while maintaining alignment, neurovascular integrity, and patient comfort.		<b>Lesson Time:</b> 30 minutes	<b>Resources:</b> Splints
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Identify indications and goals for splinting and immobilization.	Review when and why splinting is indicated (pain control, hemorrhage reduction, prevention of further injury).	Participate in discussion and identify examples where splinting is required.	
Demonstrate assessment of distal pulse, motor, and sensory (PMS) before and after splint application.	Demonstrate PMS check and explain importance of documenting changes.	Perform and verbalize PMS checks before and after immobilization.	
Demonstrate immobilization of long bone fractures.	Demonstrate proper exposure, wound care, alignment, and immobilization of long bone injuries using available devices.	Practice splinting of upper and lower extremity fractures under instructor supervision.	
Demonstrate immobilization of joint injuries.	Show immobilization of dislocations and joint injuries in position of comfort, ensuring joints above and below is stabilized.	Practice splinting elbow, wrist, knee, and ankle using various splints.	
Apply splinting techniques while maintaining spinal and overall patient safety.	Observe body mechanics and reinforce manual stabilization during splint placement.	Perform splinting as a team, ensuring communication and safety.	
Demonstrate proper use of padding and securing methods.	Show use of padding to protect pressure points and proper securing using cravats, straps, or Velcro.	Apply padding and secure splints, checking for comfort and circulation.	
Demonstrate reassessment and pain management following immobilization.	Reinforce importance of reassessment of PMS, pain, and comfort after splinting.	Reassess patient condition and communicate findings to instructor or team.	
Demonstrate Pelvic Splinting	Reinforce importance of reassessment, and proper position and proper tension		



Topic: Chapter 12 Burns		Session Type: Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to identify, assess, and manage burn injuries in the out-of-hospital setting, including classification, severity determination, airway and fluid management, and identification of patients requiring transfer to a specialized burn center.		<b>Lesson Time:</b> 20 minutes	<b>Resources:</b> PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Discuss the pathophysiology and types of burns.	Review mechanisms (thermal, chemical, electrical, friction, radiation, cold). Explain systemic effects (fluid loss, electrolyte imbalance, infection risk).	Participate in identifying burn mechanisms and potential systemic effects.	
Classify burns by depth and describe the characteristics of each type.	Use visuals to compare superficial, partial, and full-thickness burns. Explain dynamic burn wound progression.	Match photos or case descriptions to burn depths.	
Determine burn severity using %TBSA calculations.	Demonstrate methods: Rule of Nines, Palmar Rule, Lund-Browder, and Rule of 10s.	Practice estimating TBSA from sample burn patterns.	
Recognize signs of inhalation injury and airway compromise.	Review mechanisms of smoke, heat, and chemical inhalation.	Identify indicators of inhalation injury from scenarios and suggest airway interventions.	
Describe management priorities in the ITLS assessment for burn patients.	Emphasize scene safety, stopping the burning process, and prioritizing ABCs. Demonstrate rapid trauma survey with burn considerations.	Perform mock assessment and identify life threats prior to burn care.	
Discuss initial management for minor burns.	Demonstrate safe cooling techniques, wound cleaning, and dressing. Highlight hypothermia prevention.	Perform simulated cooling and dressing application on the task trainer.	
Discuss management of major and circumferential burns.	Explain indications for escharotomy (scope limitations), fluid resuscitation, and airway preparation.	Identify clinical signs of compromised circulation or ventilation from circumferential burns.	
Explain the management of chemical, electrical, and radiation burns.	Review PPE requirements, irrigation principles, and contraindicated irrigations (dry lime, phenol, elemental metals).	Work through decontamination and irrigation scenarios in pairs.	



Discuss carbon monoxide and cyanide poisoning recognition and management.	Review signs of CO poisoning and cyanide exposure; outline oxygen and hydroxocobalamin therapy.	Apply treatment decisions based on case examples.
Demonstrate understanding of fluid resuscitation principles.	Review the Rule of 10s and the modified Parkland formula, emphasizing the importance of monitoring urine output and avoiding over-resuscitation.	Calculate initial fluid replacement for sample patients.
Identify criteria for burn center referral.	Review ABA guidelines for transfer: depth, TBSA, location, age, comorbidities, or associated trauma. Review Local Guidelines to ensure you are making the correct decision for the patient	Determine whether case scenarios require transfer to the burn center.



Topic: Chapter 13 Pediatric Trauma		Session Type: Didactic, teacher-directed discussion	
<p><b>Overall Objective:</b> The student shall be able to identify key anatomic, physiological, and psychosocial differences between adults and children, apply ITLS principles to assess and manage pediatric trauma patients, and utilize appropriate pediatric-specific interventions, equipment, and transport considerations.</p>		<p><b>Lesson Time:</b> 20</p>	<p><b>Resources:</b> PPT</p>
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Recognize differences between adult and pediatric trauma patients.	Present overview of anatomic and physiological differences (e.g., airway size, organ position, blood volume). Use diagrams or comparison charts.	Identify key differences and discuss their clinical impact on assessment and treatment.	
Explain communication strategies with children and families.	Demonstrate child-friendly communication techniques and how to reassure parents.	Role-play communication with pediatric patients and caregivers during trauma scenarios.	
Describe pediatric airway anatomy and management considerations.	Review airway positioning, BVM ventilation, and appropriate ETT and SGA sizes. Discuss when field intubation is indicated or avoided.	Practice airway positioning, BVM use, and selection of pediatric airway devices on manikin.	
Identify pediatric vital sign norms and indicators of distress.	Present normal vital sign ranges by age group and indicators of respiratory or circulatory compromise.	Interpret vital signs and identify abnormalities in case-based exercises.	
Discuss recognition and management of hemorrhage in pediatric trauma.	Explain pediatric blood volume (80–90 mL/kg) and demonstrate bleeding control techniques (direct pressure, dressing, tourniquet, TXA).	Practice bleeding control and tourniquet application on pediatric task trainer.	
Recognize and manage pediatric shock.	Explain compensated vs. decompensated shock and use of fluid bolus (20 mL/kg) or blood (10 mL/kg).	Participate in scenario identifying early shock signs and selecting appropriate interventions.	
Apply the Pediatric Assessment Triangle (PAT).	Demonstrate use of PAT (appearance, work of breathing, circulation to skin) in rapid assessment.	Apply PAT framework to trauma case simulations and report findings.	
Discuss assessment and management of common pediatric trauma patterns (head, spine, thorax, abdomen, extremities).	Review unique injury risks (large head, flexible chest, exposed organs) and corresponding management.	Identify injury patterns based on mechanism and practice modified ITLS assessment.	
Describe management priorities in pediatric head injury.	Review modified GCS, airway management, and prevention of secondary brain injury.	Score pediatric GCS and discuss management priorities in TBI cases.	
Demonstrate proper spinal motion restriction techniques in children.	Show adaptation of SMR for smaller patients, including padding under	Practice SMR techniques using pediatric-sized equipment.	



	shoulders.	
Discuss fluid management and medication considerations for children.	Review length-based medication dosing (Broselow tape) and Rule of 10s for fluids.	Use case study to calculate appropriate fluid and medication doses.
Explain transport decision-making and destination criteria for pediatric trauma.	Discuss criteria for ALS/air transport, stabilization vs. rapid transport, and burn/trauma center referral.	Work through transport decision scenarios using local/regional maps or protocols.
Identify the importance of proper child restraint use in preventing injuries.	Review types of restraint systems and common misuse scenarios.	Evaluate sample restraint setups and identify proper use and corrections.



<b>Topic: Chapter 14 Geriatric Trauma</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to identify anatomical and physiological changes associated with aging, recognize how these changes influence trauma assessment and management, and apply ITLS principles in caring for geriatric trauma patients, including scene considerations, medication effects, and ethical issues such as advanced directives and elder abuse.		<b>Lesson Time:</b> 20	<b>Resources:</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Describe the anatomical and physiological changes that occur with aging.	Review system-by-system changes (respiratory, cardiovascular, neurologic, musculoskeletal, renal, immune). Discuss decreased physiological reserve.	Identify how age-related changes affect trauma presentation and management.	
Recognize how these changes impact trauma assessment and management.	Present examples of altered vital signs, blunted shock response, and atypical presentations.	Interpret case scenarios where normal geriatric physiology masks severe injury.	
Discuss the impact of comorbidities and medications on trauma outcomes.	Review common medications (anticoagulants, antihypertensives, sedatives) and their effects.	Identify how medications alter vital signs, bleeding risk, and response to injury.	
Describe respiratory and cardiovascular considerations in geriatric trauma.	Discuss reduced pulmonary compliance, cardiac output, and response to hypoxia/hypovolemia.	Apply findings to management priorities such as oxygenation, airway control, and cautious fluid resuscitation.	
Discuss neurologic and sensory system changes and their effect on assessment.	Explain decreased pain perception, slower reaction times, and potential cognitive impairment.	Practice identifying subtle neurological deficits and discussing modified GCS interpretation.	
Recognize musculoskeletal changes predisposing to injury.	Review osteoporosis, reduced bone density, and postural changes, increasing fracture risk.	Identify mechanisms of injury most likely to cause serious injury in older adults.	
Explain thermoregulation issues in the geriatric population.	Highlight increased hypothermia risk and discuss prevention strategies in trauma care.	Apply warming measures and discuss environmental modifications.	
Identify risk factors for and recognition of elder abuse in trauma cases.	Discuss subtle cues in behavior and scene findings suggesting abuse or neglect.	Evaluate case-based scenarios to determine reporting obligations.	
Apply the ITLS assessment sequence to the geriatric trauma patient.	Demonstrate scene size-up, primary survey, rapid trauma survey, and packaging with geriatric modifications.	Perform assessment and identify special considerations such as padding, slow movements, and communication style.	
Discuss advanced directives and ethical considerations.	Review DNR orders, patient autonomy, and scope of care in the prehospital setting.	Discuss communication strategies and documentation of patient wishes.	
Describe key management priorities for geriatric trauma patients.	Reinforce airway control, spinal precautions, gentle handling, hypothermia prevention, and early transport.	Develop a treatment plan based on case scenarios, incorporating these priorities.	



<b>Topic: Chapter 15 Trauma in Pregnancy</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to describe the physiological changes of pregnancy, recognize their impact on maternal and fetal outcomes, and apply ITLS trauma management principles to pregnant trauma patients, including positioning, assessment, and interventions to optimize maternal and fetal survival.		<b>Lesson Time:</b> 20	<b>Resources:</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Describe physiological changes during pregnancy.	Review cardiovascular, respiratory, and gastrointestinal adaptations ( $\uparrow$ CO, $\downarrow$ BP, $\uparrow$ O <sub>2</sub> demand, displaced organs).	Take notes and discuss how these changes alter trauma presentations.	
Explain how these changes affect trauma assessment and management.	Use examples (delayed shock signs, hidden bleeding, airway edema). Discuss need for early intervention and high suspicion for decompensation.	Identify altered vital signs and symptoms in pregnancy scenarios.	
Discuss maternal and fetal outcomes related to trauma.	Present statistics on trauma as leading non-obstetric cause of maternal death. Explain fetal hypoxia and placental abruption mechanisms.	Correlate mechanisms of injury with likely maternal/fetal complications.	
Describe unique airway and breathing considerations.	Demonstrate airway management challenges: edema, limited neck mobility, increased aspiration risk. Stress need for adequate oxygenation of fetus.	Observe and discuss alternative positioning and early airway interventions.	
Explain circulatory and hemorrhage management in pregnancy.	Review blood volume increases, hidden bleeding, and rapid compensation. Reinforce frequent reassessment and fluid resuscitation.	Participate in a case scenario requiring recognition of hypovolemia.	
Demonstrate correct patient positioning to prevent supine hypotension.	Demonstrate 15–30° left lateral tilt or manual uterine displacement using wedge/towel under right hip.	Practice adjusting patient position on backboard or stretcher.	
Discuss mechanisms of injury and their implications in pregnancy.	Review common causes: MVCs, falls, domestic violence, penetrating trauma, burns. Explain how organ displacement affects injury pattern.	Identify probable injury outcomes for given mechanism examples.	
Recognize and describe specific pregnancy-related trauma complications.	Discuss placental abruption, uterine rupture, and their signs/symptoms.	Analyze short case vignettes and determine which complication is likely.	
Discuss management considerations for penetrating and burn injuries.	Review fetal vs. maternal risk, differences in entry point, and increased fluid needs	Apply burn management and resuscitation principles to maternal	



	in burns.	scenario.
Explain early recognition and management priorities.	Emphasize ITLS primary survey, oxygenation, fluid resuscitation, and rapid transport to trauma/obstetric-capable center.	Develop and present a brief care plan for a pregnant trauma patient.
Discuss ethical and psychosocial considerations.	Address emotional stress, family dynamics, and domestic violence screening.	Reflect on communication strategies with pregnant patients and families.



<b>Topic: Chapter 16 Environmental Emergencies</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> <i>The student shall be able to identify environmental and patient risk factors contributing to environmental emergencies, recognize life-threatening environmental conditions, and apply ITLS assessment and management principles for heat, cold, altitude, and drowning-related trauma.</i>		<b>Lesson Time:</b> 20	<b>Resources:</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Explain the environmental and patient risk factors that contribute to environmental emergencies.	Review common risk factors: age (pediatric/geriatric), dehydration, medication use, exposure, and prolonged entrapment.	Identify environmental risks from real-world EMS examples and share local experiences.	
Recognize and differentiate types of heat illness.	Explain heat exhaustion vs. heat stroke. Highlight key findings: AMS (Altered Mental Status), seizure, or unresponsiveness for heat stroke.	Participate in a group exercise classifying patient presentations based on signs/symptoms.	
Discuss management of heat-related emergencies.	Demonstrate passive cooling, oral hydration, and rapid cooling methods (CWI, TACO).	Practice setting up rapid cooling techniques and discussing contraindications.	
Identify mechanisms and stages of cold-related illness.	Review hypothermia progression (cold stress → mild → moderate → severe) and frostbite stages.	Identify clinical signs and categorize the severity of hypothermia in sample cases.	
Describe management priorities for hypothermia and frostbite.	Discuss gentle handling, prevention of after-drops, passive and active rewarming, and avoidance of refreezing.	Demonstrate wrapping and insulation techniques using blankets or foil wraps.	
Recognize and describe the pathophysiology of altitude illness.	Explain hypobaric hypoxia, acclimatization, AMS, HACE(High Altitude Cerebral Edema), and HAPE(High Altitude Pulmonary Edema). Highlight key features (headache, ataxia, dyspnea).	Classify altitude illness scenarios and identify red-flag symptoms.	
Discuss the management of altitude illness.	Emphasize descent as the primary intervention, oxygen administration, and pharmacologic options (acetazolamide, dexamethasone, nifedipine).	Apply treatment priorities to a hypothetical mountain rescue case.	
Describe the pathophysiology and management of drowning.	Explain the drowning process, hypoxia at the alveolar level, and management priorities: oxygenation, CPAP, and ACLS.	Perform airway clearing and oxygen administration using scenario-based simulation.	
Identify management considerations for environmental emergencies in trauma patients.	Integrate the ITLS survey with the environmental context (scene safety, body temperature, oxygenation).	Conduct a mock assessment that integrates trauma and environmental management steps.	
Discuss prevention and scene safety considerations.	Emphasize the importance of proper PPE, risk assessment, and preplanning for environmental hazards.	Discuss how EMS agencies can mitigate heat/cold exposure risks for providers and patients.	



<b>Topic: Chapter 17 Crush and Blast Injuries</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to identify the mechanisms, classification, pathophysiology, and management priorities of crush and blast injuries, including assessment, triage, and treatment of multi-system trauma caused by Explosive or Compressive forces.		<b>Lesson Time:</b> 20	<b>Resources:</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Describe the context in which blast injuries occur.	Discuss accidental, industrial, and intentional (military/terrorist) scenarios. Relate to EMS and community settings.	Share examples of potential local blast scenarios and discuss safety priorities.	
Explain the mechanisms and pathophysiology of blast injuries.	Review physics of explosions: overpressure, shock wave propagation, and environmental influence.	Identify stages of the blast wave and their clinical impact.	
Differentiate between high- and low-order explosives.	Present definitions and examples (HE vs. LE) with photos or diagrams.	Classify case-based examples into high- or low-order categories.	
Describe primary, secondary, tertiary, and quaternary blast injuries.	Use graphics to explain classification: wave, fragment, displacement, and miscellaneous (burns, inhalation).	Match patient findings to the correct blast injury type in small group activity.	
Discuss the pathophysiology and presentation of primary blast injuries.	Review injuries to gas-filled organs (lungs, GI tract, middle ear). Emphasize blast lungs and tympanic rupture.	Identify signs/symptoms of primary blast injury from sample cases.	
Discuss secondary and tertiary blast injury mechanisms.	Explain projectile and impact mechanisms causing penetration and blunt trauma.	Review mechanisms and correlate to expected injuries in different victims.	
Describe quaternary injuries and systemic effects.	Discuss burns, inhalation injury, and psychological trauma.	Analyze sample multi-system trauma case and identify contributing injury mechanisms.	
Explain ITLS assessment and triage considerations for blast scenes.	Review scene size-up, Command structure, and mass-casualty triage priorities (START/START).	Participate in a tabletop triage exercise and resource allocation activity.	
Describe the “CABC” sequence for blast injury management.	Demonstrate catastrophic hemorrhage control, then ABCDE survey.	Perform hemorrhage control, conduct an airway check, and perform a rapid survey using a simulated patient.	



Identify potential hazards and respond to safety concerns.	Discuss secondary devices, structural collapse, and chemical/radiological contamination.	Identify and list safety actions in the discussion or scenario.
Recognize the pathophysiology and complications of crush injuries.	Explain compression injury, ischemia, rhabdomyolysis, and compartment syndrome.	Identify crush injury findings and discuss early interventions (fluids, release management).
Describe prehospital management priorities for crush and blast injuries.	Emphasize airway management, hemorrhage control, IV fluids, and pain control. Discuss coordination with USAR teams.	Develop and present management plans for simulated patient scenarios.



Topic: Chapter 18 Considerations in High-Risk and Tactical Setting		Session Type: Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to describe the phases of care and priorities in high-threat environments, apply tactical medical principles to care under fire, and explain the Rescue Task Force (RTF) models and spinal motion restriction modifications applicable to high-risk or tactical incidents.		Lesson Time:	Resources:
		20	PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Describe the phases of care in the high-threat environment.	Introduce <b>TCCC (Tactical Combat Casualty Care)/TECC (Tactical Emergency Casualty Care) equivalents:</b> Care Under Fire (Hot Zone), Tactical Field Care (Warm Zone), and Tactical Evacuation (Cold Zone).	Identify and label phases of care on the provided incident map or chart.	
Discuss care rendered in each phase of care, particularly under immediate threat.	Review <b>Care Under Fire</b> priorities: return fire, self-aid, tourniquet application, casualty movement.	Practice self-application of a tourniquet under time constraints.	
Compare ABC vs. CBA and MARCHE priorities.	Explain rationale for <b>CBA</b> (Circulation → Breathing → Airway) and <b>MARCHE</b> (Massive hemorrhage → Airway → Respiration → Circulation → Hypothermia/Head injury → Everything else).	Use examples to determine the priority order of interventions.	
Discuss massive hemorrhage control techniques in tactical care.	Demonstrate use of tourniquets, hemostatic agents, and junctional packing. Highlight “stop the bleed” integration into tactical medicine.	Perform simulated hemorrhage control using task trainers.	
Explain the principles of airway management in tactical environments.	Review progression from recovery position to basic airway adjuncts, supraglottic airways, and surgical airways as needed.	Practice simulated airway management under limited-light or stress scenarios.	
Identify environmental and operational challenges in tactical settings.	Discuss communication barriers, cover vs. concealment, and casualty extraction considerations.	Participate in a problem-solving activity using the sample MCI tactical map.	
Describe spinal motion restriction modifications for high-threat care.	Review evidence supporting delayed SMR until the threat is mitigated and rapid extraction is completed.	Discuss the risk-benefit of SMR decisions during tactical evacuation.	
Explain prolonged casualty care and the RAVINES mnemonic.	Define each RAVINES element (Resuscitation, Airway, Ventilation, Initiate telemedicine, Nursing care, Environmental, Surgical).	Review the simulated long-duration care case and list RAVINES interventions.	
List and describe the four Rescue Task Force (RTF) models.	Present the four RTF models: Escorted Warm Zone, Protected Corridor, Protected Island, and Law Enforcement Rescue.	Assign small groups to describe the advantages/disadvantages of each model.	
Discuss integration between fire/EMS, law enforcement, and command structure.	Present ICS roles and communication expectations during a high-threat response.	Simulate interagency coordination using a scenario-based communication exercise.	



<b>Topic: Chapter 19 Pain Control in the Prehospital Setting</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to identify the causes of traumatic pain, perform appropriate pain assessment using rating scales, and apply pharmacologic and non-pharmacologic pain management strategies while considering safety, effectiveness, and patient condition in the prehospital environment.		<b>Lesson Time:</b> 20	<b>Resources:</b> PPT
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Describe the origin and physiology of traumatic pain.	Review types of nociceptive fibers (unmyelinated vs. myelinated) and how trauma triggers pain response.	Discuss how different mechanisms of injury influence pain type and intensity.	
Explain the importance of pain management in trauma care.	Emphasize that pain control improves compliance, reduces stress response, and must accompany C-ABCDE priorities.	Discuss case examples where pain relief improved patient outcomes.	
Demonstrate use of pain assessment tools.	Review and display NRS (0–10) and VAS scales; discuss limitations in children and altered mental status.	Practice scoring pain levels using mock patient descriptions.	
Describe the LOPQRST pain assessment algorithm.	Demonstrate how to integrate the LOPQRST method during the secondary survey.	Conduct mock interviews using LOPQRST to assess trauma-related pain.	
Discuss non-pharmacologic pain control methods.	Review repositioning, splinting, immobilization, cooling/warming, and psychological reassurance.	Apply splinting and comfort positioning in simulated trauma cases.	
Describe pharmacologic options for prehospital pain management.	Review routes (IV, IO, IM, IN, PO, TOP) and onset times; compare advantages and limitations.	Identify appropriate route and drug choice for given case scenarios.	
Compare inhaled, parenteral, and non-narcotic analgesic options.	Review nitrous oxide, methoxyflurane (Penthrox), morphine, fentanyl, ketorolac, paracetamol, and ketamine.	Match medication options to patient conditions in a case-based group activity.	
Explain indications, contraindications, and side effects of common analgesics.	Discuss monitoring requirements, risk of hypotension, respiratory depression, or LOC changes.	List potential adverse reactions and describe how to monitor them.	
Discuss ketamine’s role in trauma analgesia.	Review dissociative mechanism, dosing, and cautions; highlight the benefit in hemodynamically unstable patients.	Calculate sample dosing (adult/pediatric) based on given weights.	
Integrate pain control within the ITLS assessment sequence.	Demonstrate prioritization of life threats first, then transition to comfort and analgesia.	Apply pain control steps during a simulated trauma assessment scenario.	



Topic: Chapter 20 Helicopter Utilization		Session Type: Didactic, teacher-directed discussion	
<b>Overall Objective:</b> The student shall be able to describe the role, benefits, limitations, and safety considerations of Helicopter Emergency Medical Services (HEMS), and apply ITLS principles to determine appropriate activation, landing zone safety, and scene coordination.		<b>Lesson Time:</b> 20	<b>Resources:</b> PPT
Sub Objectives	Faculty Activity and Teaching Methodology	Student Activity and Learning Methodology	
Describe the role and benefits of Helicopter-based Emergency Medical Services (HEMS).	Review how HEMS supplements on-scene care, provides advanced resources, and expedites transport in rural or remote areas.	Discuss regional use of air medical services and examples of when air transport improved outcomes.	
Identify key decision factors for activating HEMS.	Present the <b>three patient-centered objectives</b> for activation: (1) access to specialized care, (2) faster transport to definitive care, and (3) retrieval from difficult-to-reach areas.	Analyze activation scenarios to determine whether HEMS use is justified.	
Discuss when ground transport may be more appropriate.	Compare scene times, distances, and capabilities between ground and air resources. Highlight time-to-benefit considerations.	Debate “ground vs. air” options in case-based breakout groups.	
Explain the procedures and capabilities available through HEMS.	Review potential interventions: advanced airway, chest tubes, blood administration, thoracotomy, ECMO, and fasciotomy.	Identify procedures that justify HEMS activation based on patient needs.	
Recognize system and patient factors that may limit HEMS utilization.	Review limitations such as weather, weight, altitude, patient agitation, and contamination.	List examples of when flight requests should be reconsidered or canceled.	
Describe safe landing zone (LZ) selection and requirements.	Landing Zone (LZ) Standards require a minimum size of 100 × 100 ft (30 × 30 m), with larger areas preferred when conditions allow. The surface should be firm, level, and free of debris, with a maximum slope of approximately 5–7° (9–12% grade) to reduce rollover and rotor clearance risk. Clear approach and egress paths should be identified whenever possible, ideally into the wind, with obstacles such as wires, trees, poles, buildings, and vehicles identified and communicated to the flight crew. Establish a safety perimeter, secure loose equipment, mark the LZ as needed (cones or approved lighting—no flares), and keep all personnel clear of the rotor disk until directed by the aircrew.	Identify ideal and unsafe LZ options using photos or illustrations.	
Discuss landing zone hazards and safety precautions.	Demonstrate safe approach angles, rotor wash effects, and crew signals.	Participate in mock LZ setup and identify potential hazards (loose equipment, debris, bystanders).	



Review safety procedures around the helicopter.	Emphasize that personnel must approach only when signaled by crew, from the front, and in crouched position.	Demonstrate correct and incorrect approaches using a scenario or role play.
Describe the communication and coordination process during HEMS activation.	Review radio report format and handoff process; emphasize clear communication between ground and flight crews.	Complete a simulated HEMS radio report using the provided format.
Summarize the risks and benefits of HEMS operations.	Highlight that HEMS is more than transport—it extends critical care capability but introduces unique scene hazards.	Reflect on how proper activation and safety awareness impact patient and provider outcomes.



<b>Topic: Patient Assessment Practice</b>		<b>Session Type:</b> Practice	
<b>Overall Objective:</b> The student shall be able to perform a complete trauma patient assessment according to the ITLS Primary, Rapid, and Secondary Survey sequence, accurately identifying life threats, prioritizing interventions, and demonstrating effective communication with the team and receiving facility.		<b>Lesson Time:</b> 30 minutes	<b>Resources:</b>
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Demonstrate scene size-up and body substance isolation.	Review <b>scene safety, BSI, mechanism of injury (MOI), number of patients, and need for additional resources.</b>	Perform scene size-up aloud before approaching the patient.	
Demonstrate the ITLS Primary Survey sequence.	Walk through the <b>C-ABCDE</b> priorities: Catastrophic hemorrhage, Airway, Breathing, Circulation, Disability, Exposure. Reinforce rapid life-threat recognition.	Perform full primary survey and verbalize immediate interventions.	
Demonstrate catastrophic hemorrhage control.	Reinforce correct use of tourniquets, direct pressure, and hemostatic dressings.	Apply hemorrhage control techniques on manikin or task trainer.	
Assess airways and manage obstructions.	Demonstrate manual opening, OPA/NPA use, suction, and airway adjunct insertion.	Identify airway compromise and perform indicated intervention.	
Assess breathing and manage ventilation problems.	Review inspection, palpation, and auscultation steps; discuss indications for BVM and occlusive dressings.	Assess breathing, identify injury patterns, and initiate appropriate treatment.	
Assess circulation and control external bleeding.	Reinforce assessment of central and peripheral pulses, skin color, and capillary refill; demonstrate rapid shock recognition.	Perform circulation assessment and apply treatment for shock as indicated.	
Perform neurological evaluation (Disability).	Demonstrate AVPU, pupil check, and gross motor/sensory evaluation.	Conduct quick neurologic check and verbalize findings.	
Complete Exposure and Environmental Control.	Demonstrate exposing patients to identify hidden injuries while preventing hypothermia.	Expose, identify additional injuries, and cover appropriately.	
Perform rapid trauma survey and determine transport priority.	Discuss integration of findings to determine critical, urgent, or delayed status.	Prioritize patients and verbalize transport decision.	
Perform ITLS Secondary Survey.	Review head-to-toe exam, vital signs, SAMPLE history, and ongoing reassessment.	Perform detailed assessment with focus on injury mechanism.	
Demonstrate communication and documentation skills.	Review concise handoff report (MIST/ITLS format).	Deliver a clear and organized patient handoff to instructor or peer.	
Integrate teamwork, safety, and decision-making throughout assessment.	Observe and evaluate communication and scene control. Provide real-time feedback.	Work collaboratively within assigned roles to complete full assessment.	



<b>Topic: Testing Scenarios &amp; Written Exam</b>		<b>Session Type:</b> Testing	
<b>Overall Objective:</b> The student shall demonstrate competence in trauma assessment and management through participation in practical scenario testing and successful completion of the written examination, meeting the performance standards outlined by the International Trauma Life Support program.		<b>Lesson Time:</b> 60 minutes	<b>Resources:</b>
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
<b>Sub-Objectives</b>	<b>Faculty Activity &amp; Teaching Methodology</b>	<b>Student Activity &amp; Learning Methodology</b>	
Evaluate student performance using standardized ITLS testing criteria.	Assign faculty evaluators to scenario stations. Review the evaluation rubric and ensure consistency.	Perform full ITLS trauma assessment and management sequence in the assigned scenario.	
Assess scene safety, assessment skills, and prioritization of life-threats.	Observe students' actions, timing, and decision-making during the simulation.	Conduct scene size-up, primary survey (C-ABCDE), and critical interventions.	
Evaluate airway and ventilation management.	Observe for correct airway opening, adjunct use, and BVM/advanced airway technique where indicated.	Perform the indicated airway procedure while maintaining spinal precautions.	
Evaluate hemorrhage and shock management.	Observe use of direct pressure, tourniquet application, and fluid management decisions.	Demonstrate appropriate hemorrhage control and rapid recognition of shock.	
Evaluate overall trauma management and critical thinking.	Use structured feedback and scoring to document reasoning and prioritization of care.	Explain treatment rationale and transport decision.	
Assess teamwork, communication, and leadership.	Note the effectiveness of communication and integration with team members.	Communicate findings clearly, delegate tasks appropriately, and provide concise handoff.	
Administer a written examination to assess cognitive understanding.	Provide instructions, distribute exams, and collect them. Ensure testing integrity.	Complete the written exam independently within the allotted time.	
Review and score both written and practical components.	Faculty grade written exams and complete practical evaluation forms.	Await feedback and review results with the instructor.	
Provide feedback and remediation where indicated.	Offer post-evaluation review, identifying strengths and improvement areas.	Participate in discussion, ask clarifying questions, and plan remediation if needed.	



<b>Topic: Day 2 Questions/Adjournment</b>		<b>Session Type:</b> Didactic, teacher-directed discussion	
<b>Overall Objective:</b> Course conclusion		<b>Lesson Time:</b> 10 minutes	<b>Resources:</b>
<b>Sub Objectives</b>	<b>Faculty Activity and Teaching Methodology</b>	<b>Student Activity and Learning Methodology</b>	
Wrap up	<ul style="list-style-type: none"> <li>• Thank you.</li> <li>• Ensure no injuries.</li> <li>• Address immediate concerns.</li> <li>• Answer questions</li> </ul>	<ul style="list-style-type: none"> <li>• Ask questions.</li> <li>• End Ex</li> </ul>	



## EQUIPMENT

Whenever possible, equipment used in the course should match what students usually use. For example, when teaching IO insertion, use the actual product students use instead of a device they may never see. Equipment should be assessed and inventoried 2-3 weeks before the course. Borrowed equipment should be checked with a detailed checklist to confirm ownership and condition. Before and after the course, staged areas with limited access should be used to inventory and label equipment. Borrowed gear should be returned clean and functional, though this often gets overlooked due to fatigue. Equipment needs vary depending on the number of students and scenarios. Common sources include regional or local training departments, hospitals, and prehospital provider services. Managing equipment can be time-consuming and frustrating. The number of duplicate items depends on factors like student-to-faculty ratio (max 6:1) and the number of concurrent skill stations.

### **Skills Stations:**

The following lists are for a single skill station for the given skill topic. If the number of students necessitates additional identical skill stations, please adjust the quantity of required items proportionally. Student-to-faculty ratio may not exceed 6:1.



INTERNATIONAL TRAUMA LIFE SUPPORT  
**SKILL STATION & EQUIPMENT LISTS**

The following lists are for a single skill station for the given skill topic. If, based on the number of students, additional identical skill stations are needed, multiply the quantity of items needed accordingly. Student-to-faculty ratio may not exceed 6:1. Additionally, this is a suggested minimal list you may add to the list for your students' skill level.

<b>Patient Assessment Station Item</b>	<b>Quantity</b>
Exam gloves (non-latex, multiple sizes)	1 box each
Monitor-defibrillator	1
Live model	1
Adult bag-valve device/reservoir	1
Rigid cervical collar (size to fit your model)	1
Long backboard with straps	1
Head immobilization device	2
backboard straps	4
Trauma box or “jump kit” (materials below)	1
Each trauma box should contain the following:	
Stethoscope	1
Blood pressure cuff	1
Tourniquet	2
4-inch elastic wrap (ACE)	4
6-inch elastic wrap (ACE)	2
Gauze rolls	4
4 ´ 4 gauze pads (unsterile)	20
2’ adhesive tape	1 roll
One-inch adhesive tape	3 rolls
NRB, NC or other airway items for BLS	1each

<b>Spinal Management Station</b>	
<b>Item</b>	<b>Quantity</b>
Exam gloves (non-latex, multiple sizes)	1 box each
Live model	1
Rigid cervical collar (assorted sizes or adjustable)	1 each
Long backboard	1
backboard straps	4
Head or cervical immobilization device	1
Padding	1
Tape	4 rolls
Motorcycle helmet (full face) or open face	1
Football helmet with face protector	1



### Airway station supplies

Item	Quantity
Exam gloves (multiple sizes)	1 box
Goggles/face shield	2
Advanced airway mannequin, adult	1
Advanced airway mannequin, pediatric	1
Mannequin head/shoulder elevation (e.g., towel)	1
Airway lubricant	1
Portable suction machine with a flush and a charger	1
Manual suction device (optional)	1
Suction tubes (14–18 Fr.)	1
Oropharyngeal airways (adult and peds sets)	1
Nasopharyngeal airways (adult and peds sets)	1
Adult bag-valve device/reservoir	1
Pediatric bag-valve device/reservoir	1
Oxygen cylinder with regulator	1
Nasal cannula	1
Nonrebreather mask	1
Pulse oximeter	1
Stethoscope	1
Endotracheal tubes (7–8 & 3.5)	1 each
Stylet (adult, pediatric)	1 each
10-cc syringe	2
Laryngoscope	1
Curved blades (#3–4)	1 each
Straight blades (#1–4)	1 each
Manufactured tube holder	1
Blind insertion airway device (BIAD)	1
Waveform end-tidal CO <sub>2</sub> monitor or equivalent	1



# INTERNATIONAL TRAUMA LIFE SUPPORT CONFIRMATION LETTER TO COURSE REGISTRANTS

Date:

*Dear ITLS Registrant:*

Thank you for registering for the ITLS <TYPE OF COURSE> to be held on <DATE OF COURSE> at <NAME OF FACILITY>, <MAILING ADDRESS>.

**Enclosed you will find the following materials:**

- ITLS textbook
- Pretest and answer key
- Course agenda
- Map with directions to the course location
- Student Guide to ITLS

The <TYPE OF COURSE> is an intense, <COURSE LENGTH> learning experience that consists of didactic presentations, skill stations, a written examination, and patient assessment testing. It is.

It is extremely important that you are familiar with the text and be well prepared prior to the course. Take the pretest after you have studied the text. Check your responses with the answer key provided.

We suggest you wear casual clothes. Several skill stations require floor work with various types of equipment.

If you have any questions, please contact <COURSE COORDINATOR> at <PHONE NUMBER> or <EMAIL ADDRESS>. We look forward to seeing you at the course!

*Sincerely,  
Course Director*

+Enclosures



## STUDENT GUIDE TO ITLS

### ITLS Mission Statement

Save lives by empowering individuals and communities worldwide with high-quality trauma education.

### What to Wear on the Course

ITLS is a practical course that stresses hands-on teaching. You should wear comfortable clothes that you do not mind getting dirty. Jeans and sweatshirts are appropriate.

### How to Prepare for the Course

You absolutely must read and study the ITLS book before the course. There is not enough time in 16 hours to learn the written material, master the skills, and imprint the ITLS patient assessment method. The philosophy of a hands-on course is to be familiar with the material beforehand, to review the concepts briefly, and then to spend most of the time practicing the practical applications of those concepts. The best method of preparation is to do the following:

1. Read the book once, including skill stations that are to be taught in your course. You will be notified if you are to be responsible for any of the optional skills.
2. Take the pre-test and compare your answers to the pre-test answer key.
3. Reread the book, paying particular attention to those subjects identified as weaknesses by the pretest.
4. Memorize the ITLS Primary Survey, ITLS Reassessment Exam, and ITLS Secondary Survey.
5. If possible, practice patient assessment using the team approach as outlined in Chapter 3 of the textbook.

### Grades

At the end of the course, you will complete the Written Exam and the Patient Assessment Practical Exam. You will not be tested on each skill demonstrated at the skill stations, but you are expected to apply those skills correctly when managing your simulated patients. The Written Exam consists of 50 questions to be answered within 60 minutes, with a minimum score of 74% required to pass. Students may use textbooks or personal (written) notes during the exam, but no electronic devices are allowed. Patient Assessment is practical, graded on your overall approach to managing the problem. Exceptional students might be invited to become instructor candidates.

### Schedule

ITLS is a very intensive learning course, and time must be used efficiently. You must be familiar with your skill station schedule to ensure you have time to practice each skill during the available brief period.

### How to Function as a Team

1. Decide who will be the team leader, rescuer 2, and rescuer 3. Change each time you practice so that each member gets to be the team leader once.
2. Before entering the room, be sure you understand your duties.

**Team Leader:** You are responsible for your team's performance, directing members to act if needed. Perform a scene size-up, stabilize the spine, and assess the patient. Only you should interact with the instructor; others report to you and are responsible for their actions. Assist in carrying equipment to the patient.

**Rescuer 2:** While the team leader assesses the scene, get the cervical collar, trauma box, and oxygen equipment, and carry them to the patient. Do not approach until it is safe. When approaching, place equipment within reach and stabilize the patient's cervical spine unless the team leader does so. Maintain neck stabilization with your hands or knees until the patient is



transferred to a backboard and head immobilizer. You are responsible for maintaining the airway and ventilation, requesting instructions if needed.

**Rescuer 3:** While the team leader surveys the scene, you should get the backboard and head immobilizer ready. Assist with stopping bleeding, removing helmets, dressing wounds, and other tasks as delegated. Help transfer the patient to the backboard and secure straps if directed. Team members shouldn't wait for instructions but must not take over the evaluation; the team leader may stabilize the neck but remains responsible for assessing the patient and ensuring all procedures are done. This is easier if Rescuer 2 maintains stabilization.



## INTERNATIONAL TRAUMA LIFE SUPPORT STUDENT EVALUATION FOR PROVIDER COURSE

Student Name (optional):

Course Coordinator:

Course Date:

Course Location:

*Thank you for attending the ITLS Provider Course. This evaluation form should be completed and turned into the course coordinator at the conclusion of the course.*

**Please rate the course as follows by circling the appropriate number:**

	Excellent	Good	Average	Fair	Poor	Not applicable
Overall, the course was:	5	4	3	2	1	NA
The effectiveness of the course was:	5	4	3	2	1	NA
The ability of the instructors to deliver the content was:	5	4	3	2	1	NA
The ability of the instructors to motivate the participants was:	5	4	3	2	1	NA
The ability of the instructors to answer questions was:	5	4	3	2	1	NA
The professionalism of the instructors was:	5	4	3	2	1	NA
The time allotted to cover didactic material was:	5	4	3	2	1	NA
The time allotted to cover practical skills was:	5	4	3	2	1	NA
The quantity and quality of the medical devices and audiovisual equipment for the course was:	5	4	3	2	1	NA
The quality of the audiovisual materials and other participant materials was:	5	4	3	2	1	NA

**Please circle the number that best describes your opinion of each lecture topic:**

	Excellent	Good	Average	Fair	Poor	Not applicable
Introduction to Trauma as a Disease	5	4	3	2	1	NA
Trauma Assessment and Management	5	4	3	2	1	NA
Shock and Hemorrhage Control	5	4	3	2	1	NA
Airway Management	5	4	3	2	1	NA
Thoracic Trauma	5	4	3	2	1	NA
Head Trauma and Traumatic Brain Injury	5	4	3	2	1	NA
Abdominal Trauma	5	4	3	2	1	NA
Extremity Trauma	5	4	3	2	1	NA
Trauma Cardiac Arrest	5	4	3	2	1	NA
Burns	5	4	3	2	1	NA
Pediatric Trauma	5	4	3	2	1	NA
Geriatric Trauma	5	4	3	2	1	NA
Trauma in Pregnancy	5	4	3	2	1	NA
Patients Under the Influence	5	4	3	2	1	NA

-OVER-



## OVERVIEW

The purpose of makeup or moulage is to help students assess by making patient scenarios more realistic, especially in emergencies where injuries seem genuine. While delicate makeup is often damaged quickly, using writing on tape to mark injuries (like distended neck veins or a deviated trachea) is more effective and lasts longer than faded makeup. Makeup should primarily simulate conditions like cyanosis, shock, bruising, lacerations, burns, or abrasions. Although an experienced makeup artist is ideal, with some skill, anyone can achieve good results.

### Selecting Models

Treating a multiple trauma patient involves exposing the injured areas, including the chest. All participants should be advised to wear appropriate clothing underneath their attire. If the “patients” understand the symptoms related to their “injuries,” it enhances realism. Health care professionals or students often make excellent “patients” and find it educational. Each station's faculty should coordinate with the model to accurately depict their injuries. If moulage is used, plan for at least two hours to prepare the model.

### Makeup Kit

A wound simulation kit is available for purchase, including artificial blood, makeup supplies, and plastic or rubber injuries to attach to the skin. You can also create your own makeup kit at a cost-effective price. The lists below detail many of the required items, most of which can be obtained from local hardware, grocery, or drug stores. There's no need to rely solely on commercial kits, as there are many affordable alternatives.

### Wound Simulation

Applying makeup color is better done with rubber gloves or small sponges instead of bare fingers. When using putty, use a tongue depressor and a toothpick to smooth and shape.

- *Shock.* Use white makeup. Apply a small amount to the center of the forehead and each cheek. Smooth it out uniformly until the skin has a pale appearance. Do not apply the makeup too heavily, or the model will look like a clown.
- *Cyanosis.* Use medium blue makeup. Apply a tiny amount to the nose, lips, earlobes, and fingernails. It is best to use this in conjunction with the “shock” makeup.
- *Diaphoresis.* Mix two parts glycerin and one part water in a spray bottle. Spray it on the patient just before the student begins evaluation. Keep out of the patient’s eyes—it burns.
- *Blood.* Simulated blood is used in wounds and on clothing to have a dramatic effect. You will need blood of regular consistency, “clotted” blood, and “black” blood. Be very careful when using artificial blood, because it stains carpet and even some tile. Place an airtight sheet under the patient to prevent the blood from coming into contact with the tile or carpet.
- *Burns.* Cover the area with a thin layer of red or maroon makeup, but do not apply it smoothly, as burns are irregular. Add scattered Vaseline 'blisters' over the area, then cover with plastic wrap or facial tissue pressed down. The plastic wrap or face mask gel creates realistic blisters over Vaseline, and torn tissue can mimic broken blisters. Outline the wrap edges with black grease paint. Spray with a glycerin–water mix, then apply ashes and burned clothing.
- *Basilar skull fracture.* Place a few drops of blood in each ear. Let a small amount trickle down the face. Apply black makeup around the eyes to simulate “raccoon eyes.”
- *Abrasions:* Use a makeup brush or sponge to apply maroon liner to the affected area. Smooth and thin the edges to blend seamlessly into the skin. Cover the wound with a thick layer of surgical adhesive and dry it with a hairdryer. Once dried,



tear or pick at the center of the adhesive to mimic sloughed, abraded skin. Lightly dab a small amount of maroon and red cream over and under the adhesive. Then, apply a little glycerin followed by clotted blood. Adding some dirt can enhance realism.

- *Contusions: Since bruises are typically raised in the center, it's best to choose an area over a bony prominence. Apply a mixture of red and maroon cream, blending the outer edge in an irregular pattern. Use a brush to add blue liner to the outer third of the red-maroon area, without fully blending it in, to create a mottled look.*
- *Lacerations. Start by thoroughly cleaning the skin with alcohol. Shape a thin layer (up to 1/8 inch thick) of plumber's putty on the clean skin. Feather the edges for a smooth transition. Use the edge of a tongue depressor to cut a gash across the putty. Apply flesh-colored makeup over the entire area and surrounding skin to blend the putty with the skin. Add black blood to the wound's depth. Mix clotted blood with ashes and dab this mixture onto the area. Then, pour a small amount of blood into the gash and let it trickle down.*
- *Sucking chest wound. First, clean the skin with alcohol. Then, apply a mixture of putty with half an Alka-Seltzer tablet. Feather the edges of the putty and create a hole that mimics a penetrating wound. Use maroon or red makeup to color the area. Dab on a mixture of blood and ashes. Next, make a small hole in the Alka-Seltzer tablet. Just before the student enters, pour a little artificial blood into the hole on the tablet. It will bubble, simulating a sucking chest wound.*
- *Penetrating object. This wound is created using the same technique as lacerations and sucking chest wounds. Apply enough putty to secure the penetrating object in place. Avoid heavy objects, as they may pull the putty loose, and sharp objects, which could cause real lacerations. Use plastic objects instead of glass.*
- *Protruding intestines can be made with a commercial moulage kit or by creating realistic intestines from two rubber condoms filled with K-Y Jelly, tied off, and wrapped to resemble loops. Vascular markings are drawn with red and blue pens. Attach to skin and use blood for a lifelike effect.*
- *Open fractures. Use commercial mold or blend putty around the area. Incise with a toothpick or tongue depressor, then apply makeup for bruised, torn flesh. Use black blood in the wound base, add bone fragments, and clotted blood.*

### **Clothing**

A good alternative source for old clothing, besides your own closet, is thrift shops. These usually have some clothing in poor condition available at very low prices. Choose the largest sizes you can find.

Skills Sheets



# Skills Sheets

## Airway Assessment and Treatment

### **Objective:**

Demonstrate the ability to do an airway assessment and properly treat it.

### **References: ITLS 1<sup>st</sup> edition Manual**

### **Evaluation:**

Students will have to show the proper way to perform an airway assessment and how to properly treat any problems that they discover. Students will be evaluated on a Pass/Fail basis.

### **Materials:**

N/A

### **Product Description:**

N/A

### **Instructor Guidelines:**

- Provide the instructor with the evaluation sheet
- Read aloud the task that you want the student to complete
- Explain to the students how they will be evaluated
- Allow time for the student to process the information given in the scenario

### **Performance Steps:**

1. Put on personal protective equipment.

#### **2. Questions to ask when assessing an airway:**

- a. Is the patient conscious or unconscious? Is the patient breathing?
- b. Can I hear any adventitious sounds? (stridor, gurgling, snoring)
- c. How is the patient positioned? (lying down, sitting up, leaning forward, grasping throat) What is the patient's respiratory rate?
- d. What is the patient's SPO2?
- e. Does the patient have adequate respirations? (depth, quality) Can the patient talk?
- f. Are they coughing? (coughing up sputum, blood, etc.)
- g. Are there any airway obstructions? (saliva, blood, teeth, swelling, tongue, obvious obstruction, food, etc.) Is there any visible trauma?
- h. Are there any visible signs of swelling?
- i. What signs and symptoms are the patient describing? Is it agonal respirations? (gaspings every 10-15 seconds)
- j. Are there signs of choking?
- k. Are there signs of Anaphylaxis? What can bystanders tell me?



3. If the patient is not breathing, check pulse, no pulse, start CPR, and ventilate using a bag valve mask (BVM).
4. If the patient is not breathing adequately (less than 12 breaths per minute or greater than 20 breaths per minute with periods of apnea), consider OPA or NPA and assist ventilation.
5. If the patient is choking but able to cough, encourage them to keep coughing. If the patient becomes unable to cough, give 5 abdominal thrusts and then 5 back blows until the obstruction is dislodged or the patient loses consciousness. If the patient becomes unconscious, open the mouth to check for any visible obstructions and perform a finger sweep if you see something you can reach. If you cannot see an obstruction, start CPR.
6. If the patient has signs of anaphylaxis, do they have an EpiPen that you can assist them with?
7. If the patient has blood or secretions in the airway, use suction to clear the airway and roll the patient into the recovery position while continuing to assess the patient's airway.

**Note\***

In all cases with airway assessment, make sure that you open the patient's airway as quickly and safely as possible. Protecting the patient's airway is one of the most important life-saving measures that you can perform.

**Pass/Fail:**

