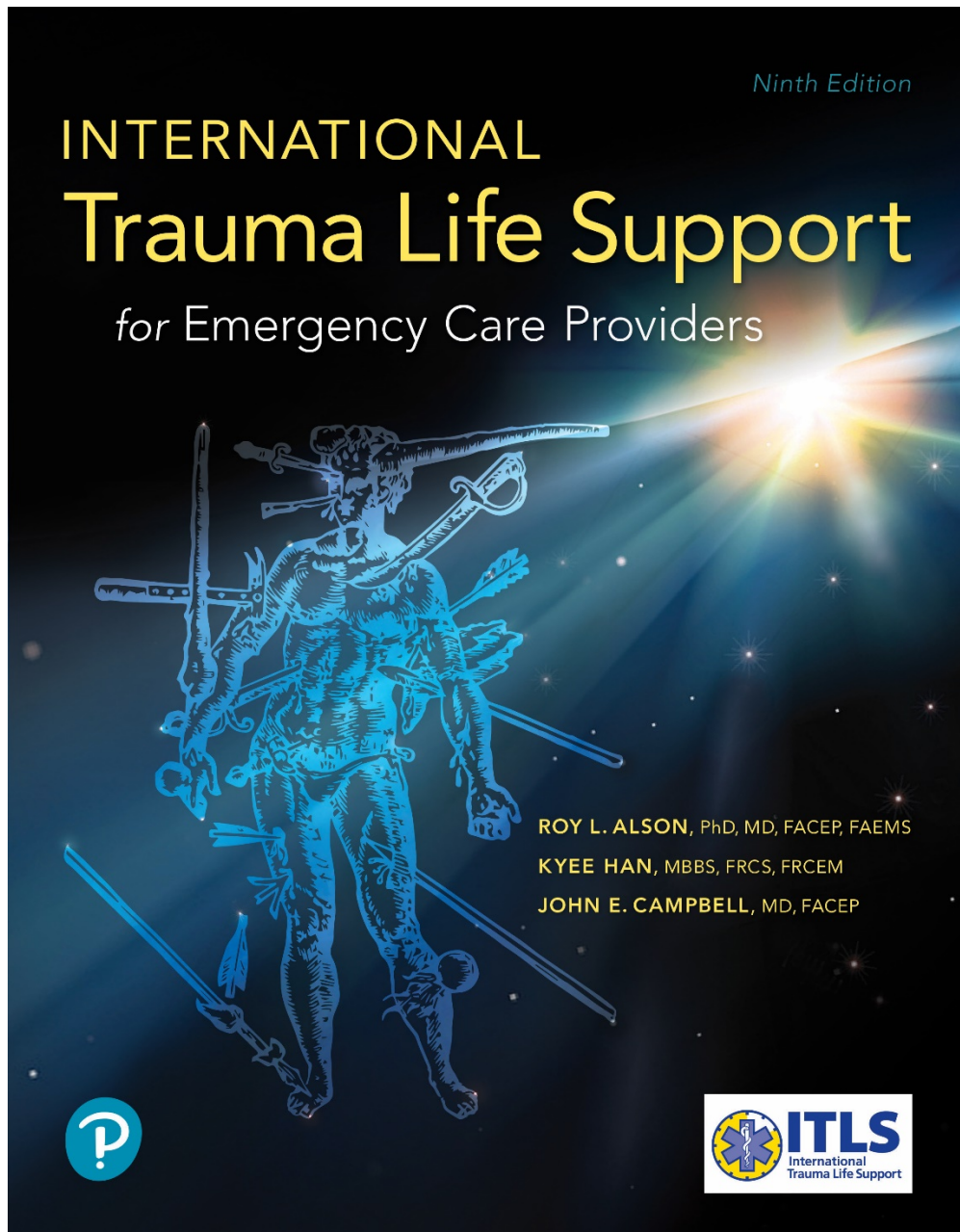# COORDINATOR AND INSTRUCTOR GUIDE

International Trauma Life Support
for Emergency Care Providers
9th Edition

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PREFACE

Mission: International Trauma Life Support is a global organization dedicated to preventing death and disability from trauma through education and emergency trauma care.

International Trauma Life Support (ITLS) was founded in the early 1980s as Basic Trauma Life Support (BTLS). From its early roots as a local and regional trauma education course, BTLS grew to have many chapters around the world. In 2005, BTLS changed its name to ITLS to better reflect its international scope.

The first BTLS course was developed in 1982 by the late John E. Campbell, MD, FACEP, with the support of an ACEP chapter grant to the Alabama Chapter of the American College of Emergency Physicians. The course was based on the need for a quality, skill-oriented continuing education program for emergency care providers. Since its inception, ITLS has become the internationally accepted standard education program for pre-hospital trauma care.

ITLS now teaches more than 30,000 students annually in more than 40 countries across the globe. ITLS has more than 90 chapters and 20 training centres worldwide. Nearly 800,000 emergency care professionals have been trained in ITLS.

This Coordinator & Instructor Guide is designed to help you conduct an organized ITLS course. It contains general information about the ITLS organization, coordinating ITLS courses, and instructing the ITLS Provider course. ITLS courses are monitored and certified by local ITLS chapters and training centres. Please refer to your chapter or training centre's Policy & Procedure Manual for specific details on structure and processes for conducting courses.

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SECTION 1 – ITLS ORGANIZATION

OVERVIEW

ITLS is a United States not-for-profit corporation exempt from federal income tax under Section 501(c)(3) of the U.S. Internal Revenue Service code. The ITLS headquarters is located in Downers Grove, Illinois.

ITLS is governed by a Board of Directors. Board members are elected at the organization's annual meeting held in conjunction with the ITLS International Trauma Conference. Board members are elected for rotating terms of three years. Board seats are also allocated to the American College of Emergency Physicians and the Alabama Chapter of the American College of Emergency Physicians. Each of those organizations appoints one member to the Board of Directors. Each ITLS chapter is allocated a number of voting delegates based on the number of ITLS students trained in their chapter during the preceding two-year period as defined in the ITLS bylaws.

ITLS is organized as a system of chapters and training centres around the world. To be certified, ITLS courses must be coordinated or approved by ITLS chapters, training centres or the International office.

In the United States, ITLS chapters are administered and conducted in numerous states, often through the state chapter of ACEP, in conjunction with a regional or state emergency medical services (EMS) agency. ITLS chapters may also be managed by hospital or healthcare systems, pre-hospital agencies, or other EMS-related organizations. All chapters and training centres must be sponsored or managed by established organizations. Individuals may not apply for chapter or training centre designation.

For specific details on the structure of a chapter or training centre, please refer to that specific Policy & Procedure Manual

Since 1994, ITLS been managed by the Illinois College of Emergency Physicians (ICEP). The ITLS Board of Directors regularly evaluates the management services provided to the organization.

ITLS Organizational Chart

ITLS Board of Directors
↓
ITLS Chapter/Training Centre
↓
International Meeting Delegates (Chapters only)
↓
Chapter/Training Centre Advisory Committee
↓
Chapter/Training Centre Medical Director
↓
Chapter/Training Centre Coordinator
↓
Chapter/Training Centre Affiliate Faculty
↓
Course Medical Director
↓
Course Coordinators
↓
Instructors
↓
Providers
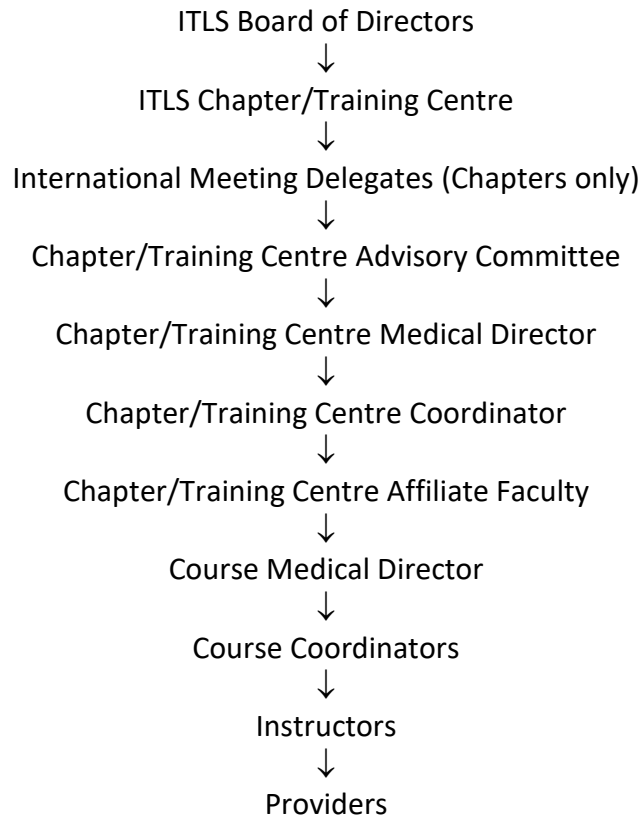
ITLS COURSES AND EDUCATION

ITLS courses give the student the knowledge and hands-on skills to take better care of trauma patients. ITLS stresses rapid assessment, appropriate intervention and identification of immediate life threats. The ITLS framework for rapid, appropriate and effective trauma care is a global standard that works in any situation.

ITLS courses combine classroom learning and hands-on skills training. They also challenge the student with scenario assessment stations where learning is put to work in simulated trauma situations. ITLS courses are designed, managed and delivered by course directors, coordinators and instructors experienced in EMS, pre-hospital care and the ITLS approach.

Each ITLS course includes a comprehensive course manual. The manual enhances learning experience with in-depth content, photos and illustrations. ITLS manuals are written by trauma care experts and reviewed by the ITLS Editorial Board. After the course, the manual serves as a valuable recap of what has been learned.

ITLS is an approved provider by the Commission on Accreditation of Pre-Hospital Continuing Education (CAPCE) [formerly CECBEMS] and all ITLS courses are CAPCE certified. CAPCE credit is accepted by numerous national, state and local organizations, including the National Registry of Emergency Medical Technicians, as the standard in EMS CE. More information about CAPCE can be found at capce.org.

ITLS has expanded beyond its initial Provider course and now offers several types of educational programs.

ITLS Provider Options

ITLS Advanced – ITLS Advanced is a comprehensive course for advanced EMTs, paramedics, nurses, physicians and other advanced EMS personnel. ITLS Advanced covers the skills necessary for rapid assessment, resuscitation, stabilization and transportation of trauma patients. The course emphasizes patient assessment and management evaluation steps and includes sequencing and techniques for resuscitation and packaging a patient. Hands-on stations include: basic and advanced airway, chest decompression and fluid resuscitation, spinal motion restriction-rapid extrication, helmet management, log roll and long back board, and traction splints. The course is approved for 16.0 hours of CAPCE credit and is required to be a minimum 16 hours in length; the material may be taught over a longer period at the discretion of the coordinator.

ITLS Basic - ITLS Basic give basic EMS personnel complete training in the skills they need for rapid assessment, resuscitation, stabilization and transportation of trauma patients. The course is designed for providers who are first to evaluate and stabilize the trauma patient. Hands-on stations include: basic airway, spinal motion restriction - rapid extrication, helmet management, log roll and long back board, traction splints, patient assessment and management. The course is approved for 16.0 hours of CAPCE credit and is required to be a minimum 16 hours in length; the material may be taught over a longer period at the discretion of the coordinator.

ITLS Combined – Many ITLS courses choose to train both Advanced and Basic level providers. In these courses, the Basic level providers partake of all didactic sessions, and observe and assist at the advanced skill stations.

ITLS eTrauma - ITLS eTrauma covers the eight hours of ITLS Provider classroom instruction in an online format, covering the core principles of rapid assessment, resuscitation, stabilization and transportation of trauma patients. ITLS eTrauma is offered at both the Basic and Advanced levels. At the completion of eTrauma, the learner may receive 8 CEH hours from CAPCE or 8 hours of physician CME and is qualified to take the ITLS Completer course that will lead to ITLS certification.

ITLS Completer Course – The ITLS Completer course is for the learner who has successfully completed eTrauma and wishes to become ITLS certified. The Completer course covers 8 hours of skills learning and assessment as well as the ITLS Written Exam.

ITLS Provider Recertification – This course provides continuing education in ITLS for the experienced provider who has already completed the Basic or Advanced Course. A sample course agenda is available from the International Office.

ITLS Rapid Renewal Provider Update - This blended-learning program combines an online course component with the Written Exam and Patient Assessment Practical Exam in the classroom setting to allow current Basic or Advanced Providers to quickly, easily and effectively renew their ITLS Provider certification.

ITLS Provider Bridge Course - Designed for the provider who has successfully completed a PHTLS, or TNCC course to transition him or her to the ITLS program. The course typically runs 8 hours. A sample course agenda is available from the International Office.

ITLS Instructor Options

ITLS Instructor Course – ITLS follows a hybrid model for Instructor training. To become an ITLS instructor:
- o The student achieves Instructor Potential on the Provider course.
- o The student completes the online component of the Instructor course.
- o The student completes the classroom component of the Instructor course.
- o The student (instructor candidate) is monitored teaching a lecture, skill station and testing of a Provider course.

ITLS 9th Edition Instructor Update Online – This online course covers the changes and new concepts found in the 9th edition Provider manual to update current instructors to the latest standards. All current ITLS instructors must complete the 9th Edition Instructor Update Online to be eligible to teach from the 9th edition Provider manual. They must also meet their chapter or training centre's teaching requirements for recertification.

ITLS Instructor Bridge Course - Designed for the instructor who has successfully completed an ATLS or PHTLS instructor course to transition him or her to the ITLS program. Following completion of an ITLS Bridge course, a candidate must be monitored teaching an ITLS provider course to complete the steps to become an ITLS instructor.

ITLS Specialized Provider & Instructor Options

ITLS Access - This 8-hour course provides EMS crews and first responders with training to utilize the tools commonly carried on an ambulance or first responder unit to reach entrapped patients and begin stabilization and extrication.

ITLS Duty to Respond - ITLS Duty to Respond is a 1-day hands-on practical trauma management course designed for first responders who have a duty to respond to traumatic emergencies. The course focuses on initial patient evaluation and critical interventions required to manage a patient until the next level of care arrives. First Aid certification is required as a prerequisite.

ITLS High Threat - The ITLS High Threat course addresses the unique challenges of providing care in a high threat environment, centrally designed around the MARCH algorithm with the military or civilian high threat provider in mind. The course ensures

compliance with TCCC and C-TECC guidelines. The High Threat foundation emphasizes hands-on instruction in elements of MARCH with integration into patient scenarios, including MCI and casualty collection point scenarios, as well as lessons from the most recent military conflicts and civilian terrorist events. This course is open to all providers who are EMT or national equivalent; 68W or military equivalent; or have an operational need for TCCC-AC or TECC level training.

ITLS Pediatric – ITLS Pediatric focuses on the special needs of young trauma patients. the care of injured children. The course teaches the principles of proper assessment, management, critical interventions, patient packaging, and rapid transport of pediatric trauma patient. The course also covers communication techniques with pediatric patients and parents.

ITLS instructors who wish to become certified to teach one of the specialized courses should contact ITLS International for details.

Reciprocity with Chapters and Training Centres

Instructor - ITLS instructor certification will be accepted from any other ITLS chapter or training centre. An instructor coming into a different ITLS chapter or training centre must apply to the local ITLS coordinator for reciprocity. This application will include the instructor's past activities regarding ITLS teaching and a letter confirming good standing from his or her former chapter/training centre coordinator or medical director.

Once approved by the ITLS coordinator, an affiliate faculty member may monitor the instructor while teaching. On completion of monitoring, the affiliate faculty member will send his or her recommendation to the ITLS coordinator. Some chapters and training centres require the incoming instructor to meet with the medical director to ensure understanding of local policy and procedures.

Provider - ITLS providers from other ITLS chapters and training centres will be accepted to the date of expiration of their certification card.

ITLS FEES

The ITLS Board of Directors sets student fees. For 2019, the student fee is $17 USD per student taught pass or fail. Chapters and training centres in developing countries may petition the Board for discounted fees.

ITLS does not charge the $17 student fee for Instructor courses or Instructor recertifications. These certifications require completion of an online component, available at a separate cost to the student.

ITLS also does not charge the $17 student fee for the Rapid Renewal Provider Recertification, as this certification also requires completion of an online component at a separate cost to the student. (The $17 student fee is still applicable to traditional Provider Recertification courses.)

Fees and rosters must be submitted to the International office no less frequently than on a quarterly basis. Chapters or training centres that fail to submit on a timely basis are subject to revocation of their charter or other disciplinary action.

INTERNATIONAL TRAUMA CONFERENCE

Each year ITLS conducts its International Trauma Conference which includes the annual meeting of the organization. The conference provides excellent educational programs in addition to the business sessions. Opportunity is provided to review the instructional materials, review the results of the teaching of ITLS internationally, receive committee reports, and gain general consensus regarding specific items taught within the program. The International Trauma Conference has been held annually since January 1985.

SECTION 2 – COURSE COORDINATION

OVERVIEW OF ITLS PROVIDER COURSE

Traumatic injury remains a leading cause of death internationally. More than 5 million people die every year secondary to injury, accounting for 9% of the world's deaths. Because the survival of trauma patients is often determined by how quickly they get definitive care in the operating room, it is crucial that providers know how to assess and manage the critical trauma patient in the most efficient way.

The purpose of the ITLS course is to teach the most rapid and practical method to assess and manage critical trauma patients. The course is a combination of written chapters to explain the "why" and the "how" and skills training to practice knowledge and skills on simulated patients so that at the end of the course students feel confident in their ability to provide rapid lifesaving trauma care.

The ITLS course focuses on the skills necessary to recognize mechanisms of injury; perform an organized, time-efficient assessment; prioritize and perform critical interventions; and appropriately package and transport the trauma patient. A major focus of the course is the identification of conditions that require immediate transport ("load and go") in order to save the patient. The ITLS course is designed to teach basic level (EMT-Bs and first responders) and advanced level (paramedics, advanced EMTs, nurses, physicians, etc.) emergency care providers. Lifesaving techniques are taught or reviewed in practical exercises. Newly developed equipment is provided, when possible, to allow the students to become familiar with state-of-the-art techniques and equipment.

Although the course is designed for the prehospital phase of EMS, it is also useful to medical students, emergency medicine residents, registered nurses, nurse practitioners, and physician assistants interested in trauma care. Not only will the lectures and most of the skills be useful, but they will also provide a unique view of the world in which EMTs must function, which is very different from the "cozy confines" of the emergency department.

Case-Based Learning

ITLS encourages its chapters and training centres to incorporate the principles of case-based learning into their courses. With case-based learning, students develop skills in analytical thinking and reflective judgment by active participation in real-life scenarios. Case-based learning creates the ability to address the cognitive, affective and psychomotor domains of learning. Learners are guided through advancement from learning toward mastery and are introduced to multiple perspectives through applied group discussions. The case-based model encourages learners to take responsibility, accountability and authority in their learning.

The ITLS Case-based Learning Guide and Practice Scenarios provides additional background on case-based learning, a repository of scenarios (regularly being updated and expanded) and the ITLS scenario evaluation rubric. These materials can be obtained from ITLS International.

Synopsis for Traditional ITLS Provider Course

The two-day (16-hour) format for ITLS Provider course is considered the most practical, even though it limits lecture time and requires precise timing of skill stations. Where there are no time constraints, you may take more time with both the lectures and the skill stations and thus enhance learning the material. An excellent way to do this is to teach the course over two-and-a-half days, in the evenings twice a week, or over a college semester.

Lectures

Coordination of the lectures is of utmost importance. The lectures set the stage for the course, and speaker delays or equipment malfunction detract from the remainder of the course. The lecture assignments may be divided among the instructors or handled by one instructor as desired. The course director or coordinator should take into consideration each person's ability to lecture. It is important that the instructors are assigned and have the PowerPoint slide presentation at least two weeks before the course. It is also important for the course director to be available in the event that an instructor is late or does not show up. The course coordinator or director must get the lecturers started and finished on time. Chapter objectives, key lecture points and instructor notes are included in the Power Point presentations

Many ITLS provider courses are considered "combined" courses with both basic and advanced level students. Basic and advanced courses may also be taught separately.

Core Curriculum

In 2017, ITLS updated its Provider course requirements to reflect a Core Curriculum model. The following core content is now the requirement for all ITLS Provider courses:
•   Introduction to Traumatic Disease
•   Trauma Assessment and Management
•   Shock and Hemorrhage Control
•   Traumatic Cardiac Arrest
•   Trauma in Pregnancy
•   Pediatric Trauma
•   Geriatric Trauma

While these are the required topics for all ITLS Provider courses, it does not mean that these subjects are the *only* subjects that should be taught. The course must continue to be a minimum of 16 hours. The local course coordinator in consultation with course medical director will have the flexibility to decide what additional subjects should be added to the course to make it a complete program.

Skill Stations

Skill stations are the heart of the ITLS course and are a key component to student success. The skill stations should complement lectures and not repeat information already presented.

Skill station equipment lists are included later in Section 4 of this guide. The skill station objectives and teaching content are found within the Provider manual. The skill stations are:

1. Assessment Skills
2. Airway Skills
3. Thoracic Trauma Skills
4. Shock and Hemorrhage Control Skills
5. Spine Management Skills
6. Extremity Trauma Skills

There are two Assessment Skills stations during the rotations. During the first rotation, students observe a detailed demonstration of patient assessment and review the ground rules of practice and testing. Students should understand the specific steps of the assessment and the implications for management after the first rotation. During the second rotation, students practice patient assessment using practice scenarios.

You are not expected to teach all types of traction splints. Teach the splints in common use in your area. In the chest decompression station, it is recommended that you teach the anterior chest technique. Intraosseous infusion is a core skill while external jugular vein cannulation is optional depending upon local protocol.

Skill Station Rotations

The students must be assigned to groups for skill station rotations. An easy way to do this is to divide them into the same number of groups as there are skill stations (see sample course agenda later in this Section) and assign a number for each group for the skill station rotations. It does not matter if all of the groups do not have the same number of students.

> **EXAMPLE:** If there are 24 students and 6 skill stations, you would have six groups of four students.

> **EXAMPLE:** If there are 20 students and 6 skill stations, you would have four groups of three students and two groups of four students.

An easy way to do this is to point out "1, 2, 3, 4, 5, 6, 7 [to the number of skill stations], Group One; 1, 2, 3. . . Group Two," and so on, while the students are still seated. Tell them to report to the skill station that is the same as their group number. In other words, Group One goes to Station 1, Group Two to Station 2, and so on. Explain to the students that, when the timekeeper announces, "CHANGE STATIONS," each group will rotate up one number. For example, Group One goes to Station 2, Group Two goes to Station 3, and so on. Also explain that when rotating from the station with the highest number, that group goes to Station 1. (See the tentative schedules later in the chapter.)

Most course coordinators wait to assign groups until the students have arrived for class. If groups are assigned before class begins, you may have to rearrange groups if some of the students do not show up.

Practice and Testing Stations

The number of scenarios that you use will depend on the number of students in the course. Typically, you need at least one scenario station for each three students; however, group size may be adjusted to accommodate course needs. By design, students will have exposure to a minimum of six scenarios (three practices and three tests for a group of three). You will almost always need an extra scenario station for retests, but this can be put together at the end of the day if you are short of instructors. If you mingle basic and advanced students, the instructor must indicate the student's level of training (basic or advanced) on the evaluation tool and conduct the practice and test scenarios according to the appropriate level.

Practice scenarios are meant to assess the learner's ongoing progress and offer the learner the opportunity to reevaluate their progress and identify their strengths and weaknesses. Students typically practice in teams of 3 or 4. The goal is to improve efficiency and effectiveness. Using the evaluation tool, debrief the student's performance. Debriefings usually include self, peer and instructor critiques. Having open dialogue allows the learners to reflect on their performance/knowledge and generate feedback to help them improve.

Testing scenarios are used to *evaluate the learner's performance and knowledge* using ITLS standards or benchmarks. Testing is done in teams of 3 or 4 with students rotating roles that that no scenario is repeated for the team. The goal is to prove competence or proficiency. At the conclusion of testing, providing the student their results with a very brief critique is recommended. Typically, this is done in private with the team leader, using the evaluation tool as a guide. However, it may be acceptable to involve the entire team. Chapters and training centres have the option to delay providing the final results until after the post-course faculty meeting.

Practice and testing scenarios (regularly being updated and expanded) are available separately and can be obtained from your chapter or training centre.

When your students are ready to be assigned for rotation of their practice and testing scenarios, they need to be divided into groups.

Tell them to report to the patient assessment station that is the same as their group number. In other words, Group One goes to Station 1, Group Two to Station 2, and so on. Explain to the students that when the timekeeper announces, "CHANGE STATIONS," each group will rotate up one number. For example, Group One goes to Station 2, Group Two goes to Station 3, and so on. Also explain that when rotating from the station with the highest number, that group goes to Station 1.

If your head count leaves you with two students in the last group, they can rotate as a group of two. If your head count leaves you with one student in the last group, take that student and one student from another group and make two groups of two. A group of four students will not allow your stations to rotate smoothly. The groups of two students will rotate to the third practice station. One of the students will practice twice. This allows the group of two to participate in three practice stations, the same as the other groups. When they move to the fourth station, it will be a test as it is for everyone else. However, after both students test, they

will be finished.

Each student should experience an assessment teaching station for 20 minutes and an assessment testing station for 10 minutes. These times may vary according to your discretion.

By using this system, rotations will be smooth with very little coordinating, and nothing needs to be written down. Students who do not show up for the course will not affect rotations. Enough copies of the evaluation tool must be made so that each station will have enough for all the teams.

All groups typically rotate through the patient assessment testing stations at the same time. However, if there is an insufficient number of faculty members to conduct concurrent stations for each group, some course coordinators arrange for half of the groups to take the Written Exam while the other half take the Patient Assessment Practical Evaluation. If you use this type of rotation, it is very important to keep the two groups of students separated so there is no exchange of test information (written or practical) between the two groups.

Performance Criteria

ITLS recommends two Instructors staff each testing station to evaluate student performance. One Instructor will run the scenario with the student, and the other will record the student's performance.

Performance criteria include the following:

Inadequate Rating
1. Does not identify existing hazards placing 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

Competent Rating
1. Identifies existing hazards and does not place 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 directs 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 identifies all existing and potential hazards and does not place 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 Rapid 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

Written Exam

All student must pass the standardized ITLS Written Exam with a minimum score of 74% (or higher score set at the discretion of chapter/training centre). ITLS has adopted an Open Resource Policy for Written Exam testing, mandatory for all chapters and training centres as of January 1, 2019. Students are permitted to use the textbook or personal (written) notes while taking the ITLS Written Exam. No electronic devices will be permitted during testing. Students are allowed a maximum of 1 hour to complete the Written Exam.

Students who successfully complete the Written Exam but are unable to pass the practical skills may receive a certificate of course completion with continuing education hours, but not an ITLS certification card.

Students must attend the entire 16-hour course to become ITLS certified.

Sample Course Timetables

The classic ITLS Provider course schedule has had lectures in the morning and skills in the afternoon for 2 days. It was originally done this way to follow the example of the ATLS and ACLS courses. Utilizing this format necessitates teaching skills that will not be covered in a lecture until the second day. Some ITLS programs have modified the schedule so that all of the lectures are presented on the first day, and the skill stations are taught the morning of the second day. Testing occurs the afternoon of the second day.

ITLS does not dictate a specific course agenda. Coordinators, along with the instructors and the medical director, should evaluate student population and resources to determine which format is best in achieving the goals of the ITLS Provider course.

Sample Timetable: Traditional Two-Day Provider Course

First Day

On-Site Registration and Collection of Pretests	30 min
Welcome and Introduction	5 min
Introduction to Traumatic Disease	30 min
Trauma Assessment and Management, and Traumatic Cardiac Arrest	45 min
Patient Assessment Demonstration	15 min
Break	15 min
Airway Management	30 min
Shock and Hemorrhage Control	30 min
Lunch and Faculty Meeting	60 min
Thoracic and Abdominal Trauma	30 min
Head and Spinal Trauma	30 min
Extremity Trauma	30 min
Skill Stations (can vary from 30 – 45 minutes each) 1. Assessment Skills I 2. Airway Skills 3. Thoracic Trauma Skills 4. Shock and Hemorrhage Control Skills 5. Spine Management Skills 6. Extremity Trauma Skills 7. Assessment Skills II	210 min
Faculty Meeting	30 min

Second Day

Burns	45 min
Trauma in Pregnancy	30 min
Pediatric Trauma	45 min
Break	15 min
Geriatric Trauma	25 min
Patients Under the Influence	20 min
Patient Assessment Practice Scenarios	120 min
Lunch and Faculty Meeting	60 min

Patient Assessment Test Scenarios	90 min
Written Exam	60 min
Faculty Meeting	30 min

Sample Timetable: Core Curriculum Two-Day Provider Course

First Day

On-Site Registration and Collection of Pretests	30 min
Welcome and Introduction	5 min
Introduction to Traumatic Disease and Trauma Assessment & Management	40 min
Patient Assessment Demonstration	15 min
Break	15 min
Patient Assessment Skill Station	120 min
Thoracic Trauma	20 min
Shock and Hemorrhage Control	30 min
Traumatic Cardiac Arrest	20 min
Lunch and Faculty Meeting	60 min
Skill Stations (45 min each, plus 15 min break) 1. Thoracic Trauma Skills 2. Spine Management Skills 3. Airway Skills	135 min
Faculty Meeting	30 min

Second Day

Trauma in Pregnancy	20 min
Pediatric Trauma	30 min
Geriatric Trauma	20 min
Case-Based Scenarios Skill Stations* 1. Head Injured Patient (Helmet Removal) 2. Extremity Trauma Patient (Traction Splinting) 3. Impaired Patient (Prone)	90 min
Break	15 min
Case-Based Scenarios Skill Stations* 1. Abdominal Trauma 2. Spinal Trauma 3. Burns	90 min
Lunch and Faculty Meeting	60 min
Patient Assessment Test Scenarios	120 min
Break	15 min
Written Exam	60 min
Faculty Meeting	30 min

*Case-based learning scenarios are available separately from ITLS International.

Sample Timetable: Provider Recertification Course

On-Site Registration and Collection of Pretests	30 min
Written Exam	60 min
Skill Stations	30 min each
Lunch	60 min
Review of Patient Assessment	15 min
Patient Assessment Scenario Practice and Testing	120 min
Faculty Meeting	30 min

Sample Timetable: Provider Bridge Course

On-Site Registration and Collection of Pretests	30 min
Patient Assessment Demonstration	45 min
Airway Management	30 min
Break	15 min
Head Trauma	30 min
Shock and Hemorrhage Control	30 min
Skill Stations	30 min each
Lunch	30 min
Written Exam	60 min
Patient Assessment Scenario Practice and Testing	120 min
Faculty Meeting	30 min

Faculty Meetings

Pre-course

This meeting has traditionally taken place the evening before the course but may be done early in the morning during course registration. This meeting serves several important functions:

1. Orient the faculty to each other and to the site.
2. Orient the faculty to the particular student composition (EMTs, first responders, paramedics, registered nurses, medical students, medical residents, etc.).
3. Update any changes in the agenda and remind faculty of the importance of adhering to scheduled lecture times.
4. Update the latest ITLS innovations and directives from the affiliate faculty present.
5. Remind faculty that the discussion of students that takes place in the faculty meetings is to be kept in the meetings.
6. Review both this Coordinator and Instructor Guide and the student textbook to ensure consistency among instructors for the entire course.
7. Review available equipment.
8. Review any skill station revisions, and local procedures or protocols that might directly impact the station.
9. Identify last-minute faculty no-shows.
10. Schedule daily faculty meetings.

Before Skill Station Rotations

This should be a brief meeting to review teaching techniques and objectives of the skill stations. Specifically stress that skill stations are not for lectures but for demonstration and hands-on training. Emphasize that each session must begin and end on time.

Before Assessment Scenario Practice and Testing

The most frequent student complaint in course critiques has been inconsistency among the faculty members' teaching and testing assessment scenarios. This meeting should review the following sections in both the student textbook and this Coordinator and Instructor Guide:
1. Ground rules for team practice and testing (see Section 4 for the student guide).
2. Breakdown of performance criteria
3. How to fill out the scenario evaluation tool
4. Pass/fail criteria
5. Retest policy
6. Emphasize need to orient models to the scenarios
7. Reminder that the purpose of the faculty is to help the student learn enough to pass the course. Every effort must be made to identify weaknesses and assist the student in correcting them.

Post-Course

This meeting may be used to determine each student's final grade. When grading is completed, the faculty should be encouraged to critique the course and offer constructive suggestions for future courses.

Each student's written exam score and patient assessment performance (both practice and test) should be collated with the student's photo (optional) and considered by the faculty.

If a student fails the patient assessment station, affiliate faculty and/or the course medical director may consider the student's practice grade to see whether a marginal increase in the grade is warranted. The same is true if the student is a possible instructor candidate. The scenario practice grade cannot be used to lower a passing grade. In other words, faculty members should consider practice scores only if they are considering raising the student's grade.

The evaluation sheet of students who fail should include careful documentation of why they failed. Students should always be allowed to review the information missed on written exams. Thus, be very careful in your documentation.

Faculty Critique

This is usually the last time that the faculty will be together until another ITLS course. Now is the time to collect comments from the faculty about the course and the teaching material. How can they be improved? ITLS is always interested in ways to improve the text, slides, skill stations, scenarios and instructor guide. All comments and suggestions are appreciated and carefully considered for changes in future editions. The future development of ITLS depends on continued constructive criticism by students and faculty.

PLANNING AN ITLS COURSE

Scheduling a Course

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

Selecting a Course Coordinator

The course coordinator is the key to a successful program. This position requires someone who is organized and motivated because there is a considerable amount of work involved over several months. For the qualifications of a course coordinator, refer to the Policy & Procedure manual of your local chapter or training centre.

Teamwork and communication are the keys to a successful ITLS course. The course coordinator must have a smooth working relationship and open communications with the course medical director and affiliate faculty, because it is teamwork that determines a successful outcome. Together they must select the site and the faculty for the course. These selections are made on the basis of availability and the time frame in which they are working. Usually, three months are needed for the development of a course from beginning to end, with the last two weeks being the most intense.

ITLS requires that the course coordinator be on site during the course.

Selecting a Course Medical Director

The course medical director must be a physician ITLS instructor who is licensed to practice in the jurisdiction where the course is taught. A physician who is not already an ITLS instructor may co-direct a course with a physician ITLS instructor. The medical director must take overall responsibility for the quality of the course.

The course medical director must be available for consultation during the course but does not necessarily have to be on site for the course duration (though it is recommended when possible). The course medical director acknowledges accountability by being familiar with all course content and ensuring the course is taught per guidelines of the chapter or training centre and ITLS International.

The course medical director will chair the faculty meeting at the end of the course. If questions arise concerning grading, the vote of the majority of the faculty will prevail. The medical director will vote only in the case of a tie. If the medical director is not on site, the meeting may be chaired by the course coordinator or affiliate faculty member.

Selecting Faculty

The faculty for an ITLS course must consist of a course medical director, course coordinator, affiliate faculty member, and enough instructors to teach the number of students registered. It is advisable to have a multidisciplinary faculty involved with the course to provide a balanced

presentation of the trauma team concept. Each course must have at least one designated affiliate faculty member on site to provide the necessary quality assurance, overall responsibility, and adherence to ITLS standards during the course.

The number of instructors needed depends on the number of students: ITLS requires a student to faculty ratio of no more than 6:1 for skill stations. The patient assessment testing is one-on-one and requires many instructors in order to keep the length of the course reasonable. The number of instructors used in the lectures varies. Most courses divide the lectures among the instructors, but one instructor can do all of them, if necessary.

When selecting instructors, remember that some people are good at lectures, others are good at practical skills teaching, and a few are good at both. Try to make assignments that correspond to the instructors' abilities. Local faculty should be used whenever possible. The greatest cost involved in an ITLS course is the cost for out-of-town instructors. Many instructors serve without pay, but out-of-town instructors will usually expect to have their travel expenses paid. Although it is preferred to have the same instructors for both days, it is not absolutely necessary, as some faculty have only one day available.

Instructors should be consistent in their teaching methods. There are two ways to promote consistency. One way is to cover all of the normal inconsistencies in the instructor meeting prior to the course. The other is to monitor each lecture and skill station to catch inconsistencies.

Selecting Models

Most ITLS courses use live models for skills stations and testing. Mannequins and patient simulators may also be used.

Because both acting ability and hard work are required of the models, use your best judgment when selecting them. They will be required to submit to being moulaged, examined, handled, extricated, splinted, and strapped for several hours. Some students enjoy the opportunity and may be able to get school credit for serving as a model. Models should be advised in advance of the course that they will always have their chests examined. All models should be furnished with old clothes or asked to wear clothes that they do not mind having ruined (it is a good idea to have clothes made up with Velcro fasteners so they can be pulled apart for exam and then easily stuck back together). Because the models will learn a lot about trauma care, EMTs or EMT students may be used for this role. Students enrolled in the ITLS course should not be used for models except for minor skills such as traction splinting or helmet removal. The weight and age of a model should be a consideration. Models that are too heavy may cause injuries to your students, and models that are too young may have too short an attention span to last through a scenario.

Selecting the Site

Selection of the appropriate site is the responsibility of the course coordinator and medical director. They should inspect the facility to determine the adequacy of the following:

1. Large lecture room to accommodate both students and faculty. The standard ratio for a classroom is one person per 15 square feet. In other words, a 750-square-foot classroom would comfortably fit 50 people.
2. An adequate number of tables and chairs for students and faculty.
3. Find out how many windows are in the classroom. If there are windows, they will need to have shades so the slides projected on a screen can be seen.
4. The room should be adequately ventilated, heated and cooled.
5. Sufficient number of rooms or spaces to accommodate students, faculty, and equipment for skill stations. You will need at least one room or space for each skill station. Plan carefully; some stations require more space due to the amount of equipment. Some stations will require tables, whereas others will require an open space. These rooms must be available prior to the start of skill stations to allow equipment to be set up.
6. Sufficient number of rooms or spaces with open space to accommodate students, faculty, and equipment for patient assessment scenarios. You will need at least one room or space for each group of three students. These rooms must be available prior to the start of skill stations to allow equipment to be set up.
7. The rooms or spaces designated for skill stations and patient assessment scenarios should be close enough to each other to allow timely rotations, but far enough from each other so that activity in one station does not distract students in another station.
8. A room or space that can be secured that is large enough to gather and store equipment while it is not being used in skill stations.
9. Privacy, which will prevent distractions to the students and shock to the casual passersby. ITLS courses have been successfully taught in hotels, churches, hospitals, community colleges, scout camps, and EMS training facilities. If you are teaching at a facility with which you are not familiar, you should inspect the site, if possible. Be sure that students and faculty get a map of the location with their pre-course materials. You will also need the name of a responsible contact person for the facility.

Meals

The ITLS Provider course is an intensive learning course, and convenient on-site lunches are recommended in order to save time. The advantages of on-site meals include the following:
- They keep the students in contact with other students and faculty to foster the sharing of professional experience.
- They keep the students in close proximity to the course for easier coordination.
- They keep the amount of lost time to a minimum by eliminating students' waiting time and travel time.

The disadvantages of on-site meals are as follows:
- Increased course registration fees to cover the cost of meals.
- Inability to satisfy everyone's tastes.

On-site meals need to be cost-effective and simple. Allowing the students to wander to restaurants and stand in line to be served is a hindrance to course completion, but at times it is necessary. If you cannot provide on-site meals, you should provide specific directions or maps to nearby restaurants.

Course Budget

One of the earliest tasks for the course coordinator is to establish the course budget. This needs to be one of the first considerations in planning a course because the course fee needs to be set early. Several factors should be considered and will vary from course to course.

Potential Course Expenses	(Sample Based on 18 Students)	
Expense	**Total (USD)**	**Per Student (USD)**
Textbooks	$1,116.00	$62.00
ITLS International Student Fees	$306.00	$17.00
Chapter/training centre fees	$306.00	$17.00
Medical Director fee	$400.00	$22.22
Course Coordinator fee	$500.00	$27.78
Faculty honorarium	$600.00	$33.33
Faculty travel/hotel expenses	$300.00	$16.67
Pre-course printing, copying, name tags, etc.	$50.00	$2.78
Postage (includes post-course mailings)	$108.00	$6.00
Equipment rental	$125.00	$6.94
Snacks	$90.00	$5.00
Miscellaneous (moulage, facility, etc.)	$30.00	$1.67
TOTALS:	**$3,931.00**	**$218.39**
Variables used in calculation		
Number of students		**18**
Number of instructors (6:1 ratio)		**3**
Textbook		**$62.00**
ITLS Fee per student		**$17.00**
Chapter/training centre fee per student		**Varies**
Medical Director fee		**Varies – set by course budget**
Course Coordinator fee		**Varies – set by course budget**
Number of instructors		**3**
Honorarium rate per instructor		**Varies – set by course budget**
Miscellaneous expenses per student		**Varies**

Instructor-Ready Materials

Creating a set of instructor-ready materials can help decrease the confusion in coordinating an ITLS course by assembling the necessary materials into one location. There are two options for delivery:

Book Option

The books are made in inexpensive three-ring binders. There is only one book per lecture, per skill station, and per testing scenario. Initially, building this bank of books takes a bit of work. You will need to do a lot of copying the first time you make them but doing so will save you a lot of copying in future courses. You must keep track of these books, collecting and storing

them between each course.

>*Lecture Book:* Provide a printout of PowerPoint slides with instructor notes for each lecture. At the beginning of the book, the following items are updated per course:
>- The letter of what is expected from instructors
>- Location and map
>- Class schedule

>*Skill Station Book:* The following items are placed permanently in each skill station book:
>- A copy of the skills criteria from the student manual
>- A list of equipment required for the skill station

>At the beginning of the book, the following items are updated per course:
>- The letter of what is expected from instructors
>- Location and map
>- Class schedule

>*Testing Scenario Book:* The following are placed permanently in each testing scenario book:
>- Four copies of the scenario
>   - One for the instructor
>   - One for the moulage technician
>   - One for the model
>   - One to stay in the book if the others are lost
>- Adequate copies of the scenario evaluation tool (some prefer different-colored sheets for practice and testing).

Digital Option
All course materials are available in digital format (PDF). Course coordinators and instructors may choose to use tablets or laptops in the delivery of course content. Using this option may ensure you have the most recent content. If this option is used, it is strongly recommended to have a hard copy of materials as back-up.

Delegating Tasks
Staff support is needed in the following areas:

Correspondence: An efficient and organized course assistant is invaluable in this area. The assistant will create course rosters and send participant and faculty confirmation notices. Email is encouraged for efficiency and cost saving. There are also many schedules and rosters that must be sent to both faculty and students. The assistant must be proficient using the ITLS Course Management System (CMS).

Equipment manager: One person should be assigned the task of securing, organizing, cleaning and inventorying the equipment. This is especially true at the end of the course when everyone

is tired and ready to go home. If one person does not take responsibility for getting equipment cleaned, repaired, packaged, and returned, there will be equipment missing.

Skill station timekeeper: There is a very tight schedule during the skill stations. There are only 30 minutes in which to practice a skill, prepare the room for the next group, and coordinate the rotation of groups to the next station. One person should be delegated to notify each instructor 5 minutes before the end of the teaching period. This person, usually the coordinator, should then notify each instructor when the period is over. Unless monitored closely, skill stations tend to run overtime, with resultant schedule disruption and confusion.

Models: One person should be responsible for recruiting models for the skill stations and patient assessment scenarios. This same person should coordinate makeup (moulage) of the models. Models should arrive at the course at least 2 hours ahead of time in order to have their makeup applied. The use of mannequins is also acceptable.

Moulage: At least two people should be assigned the task of applying makeup and moulage to the models. They should be reminded that *simpler is better*. Complex moulage often falls off after the first session. The commercial rubber moulage is not as realistic but is very durable. Using a felt-tip pen to simply draw and label the injury (onto a piece of white tape that is stuck to the affected part) is also acceptable. The moulage coordinator should be prepared to make the rounds during the course to maintain the victims' moulage. Please see Section 5 – Moulage for detailed instructions on creating realistic moulage.

Records Retention
All documents related to an ITLS course must be kept for a minimum of 3 years (or longer period set at the discretion of chapter/training centre).

Master Course Planning (corresponding checklist in Section 4)
Three Months Before the Course
1. Select the target group of students with the course director.
2. Select the site and date.
3. Enter the course into the ITLS Course Management System (CMS).
4. Make initial faculty contact.
5. Establish a tentative budget for your course.
6. Once the course is approved, send invitations/brochures to the target group of students.
7. Appoint an equipment manager and take an inventory of the on-site equipment. Determine the needed equipment from the lists in the skill stations and patient assessment stations. Make initial contact for outside sources of equipment.
8. Visit the site and confirm dates. Order the menu for the meals and arrange for refreshments at the breaks.

Two Months Before the Course

1. Make overnight accommodations for faculty as needed. An evening meeting place at the hotel for the visiting faculty is advantageous. If lodging is some distance away from the course site, maps should be provided.
2. Order the student manuals from the ITLS Bookstore at www.itrauma.org.
3. Send faculty acknowledgment letters with course dates and request confirmation. To avoid misunderstanding, the introductory letter should state whether the faculty members are performing gratis, for reimbursement of expenses, or for a stated honorarium and reimbursement of some or all expenses.
4. Decide whether you wish to sell and/or distribute specialty items (T-shirts, pins, etc.). Items can be ordered from the ITLS Bookstore at www.itrauma.org.

One Month Before the Course

1. Prepare the faculty roster and assignments.
2. Send faculty pre-course letter. The following items should be sent to each faculty member:
   a. Acknowledgement letter.
   b. Copy of PowerPoint slides for assigned lectures.
   c. Agenda for lectures and practical sessions.
   d. Location and floor plan of the facility where the course will be taught.
   e. Faculty assignments for lecture, skill stations, and patient assessment stations.
   f. Registration forms for hotel accommodations (if applicable).
3. Confirm all hotel reservations.
4. Enter student data into the CMS course roster as candidates apply.
5. Prepare and send confirmation materials to registrants. Include a pre-course study packet as follows:
   a. Student manual (unless the students have already purchased them).
   b. Pretest and answer key.
   c. Tentative course schedule with a list of any optional skills to be taught. Make it clear to the students that they do not have to be responsible for optional skills that are not to be covered in a particular course.
   d. Map of course location that includes area hotels.
6. Check the available equipment with the equipment manager. Verify where the remainder of the equipment is to be obtained and who is transporting it.
7. Recruit models with the moulage coordinator.

Two Weeks Before the Course

1. Prepare the final student roster.
2. Meet with the course director to check the following:
   a. Final schedule.
   b. Equipment.
   c. Facility.
3. Prepare candidate packets:
   a. Welcome letter.
   b. Group assignments.

      c. Final agenda.

      d. Rotation schedules.

      e. Faculty roster with email addresses.

      f. Student roster with email addresses.

      g. Name tags.

4. Make a final site visit:

      a. Confirm breaks and meals with caterers.

      b. Check rooming lists.

      c. Plan the layout of the rooms for skill stations and patient assessment stations.

      d. Make arrangements to open the doors at least two hours prior to the course in order to organize the equipment staging area and make coffee.

5. Send confirmation letter to models. Specify clothing to wear, reimbursement, meeting place, and times.

6. Photocopy the necessary pages from the instructor guide to include:

      a. Pages relevant to each instructor's skill station.

      b. Pages relevant to each instructor's patient assessment station.

      c. Written Exam and answer sheet for each student (with extras). This must be obtained from your local ITLS chapter/training centre.

      d. Patient assessment evaluation tool (10 to 15 copies for each station).

      e. Equipment list for each skill station and patient assessment station with the numbers of the skill station and patient assessment station to be taped to the door for the equipment manager.

      f. Various forms (such as the student course evaluation form and the affiliate faculty course evaluation form).

7. If you plan to photograph the students for identification, have a digital camera or smartphone available.

One Day Before the Course

1. Take all equipment to the staging area of the facility. Inventory and properly label it. Secure the area.

2. Set up, inventory, and check all audiovisual equipment. You need a laptop, projector and may need other items such as a screen, extension cord, remote control with extension, and microphone if the size of the room requires it.

3. Conduct a pre-course faculty meeting to distribute the faculty member packets. Include an agenda, station locations, selected scenarios, assignments, and final roster. Review the plan for the course, including the following:

      a. Meals and meetings.

      b. Final agenda with changes noted.

      c. Student registrants, reviewing backgrounds (prehospital, nursing, industrial, military).

      d. Plan for management of equipment.

      e. Skill stations.

      f. Grading criteria and retest policy for patient assessment.

      g. Ground rules for student team member roles.

      h. Plan for setting up skill stations and distribution of equipment.

First Day of the Course

1. Arrive early with the equipment manager and moulage coordinator. Verify thermostat settings, posting of outside signs, room assignments, equipment distribution, and model preparation.
2. Verify proper functioning of audiovisual equipment and set up registration desk.
3. Register participants and collect their pretests.
4. Take photographs, if possible, to assist in identifying students during the course and at the closing faculty meeting. At the post-course faculty meeting, the students should be discussed in the order that they appear on the photos. If you decide to use this method, explain to the students that the only purpose of the photos is to help the faculty identify the students.
5. Begin lectures. Introduce the first speaker, make sure the second one is ready, and so on. If a scheduled lecturer does not show up on time, you may substitute another lecture (it is a good idea to ask all lecturers to be present at the beginning of the course) or have one of the other faculty members present give the scheduled lecture.
6. During the morning lecture session, the other faculty members should set up their skill stations and inventory their equipment. It is best to do this the night before, but providing equipment security often prevents this.
7. Check to be sure that the models arrive in time to be moulaged before the patient assessment skill stations.
8. Have a brief faculty meeting to review goals and procedures before beginning the skill stations. This may be done during lunch, but it is better for the faculty to have lunch with the students. Students are much more likely to ask questions of the faculty at this time.
9. Assign a timekeeper to notify each instructor 5 minutes before the end of each skill station teaching period. This person should then notify each instructor when the period is over. You must keep the stations on time. Any station that runs over its scheduled time will delay the whole schedule.
10. Enlist the support of the faculty to tear down the skill stations and distribute the equipment to the patient assessment stations. Extra equipment should be stored in the equipment staging area. Maintaining equipment security may prevent you from distributing equipment until the second day.

Second Day of the Course

1. Arrive early with the equipment manager and moulage coordinator. Confirm the room assignments and verify the functioning of the audiovisual equipment.
2. Greet the students, correct any registration deficiencies from the first day, and make sure that all student data is entered into CMS.
3. Begin lectures; introduce the first speaker, make sure the second one is ready, and so on.
4. Direct the moulage coordinator to take charge of the models and their moulage.
5. Have faculty members set up their patient assessment stations and inventory their equipment.
6. Verify that the room where the written exam will be administered (if being administered) is set up with answer sheets and pencils. A monitor should be assigned to the room. The monitor should grade tests immediately.

7. Verify that the instructors close their stations for lunch and that food is offered to the models.
8. Set up a collection area during testing. Collect the patient assessment evaluations and collate them with the written tests and photographs.
9. Arrange with a testing instructor, student, and course director for the retest of students who fail their practical test.
10. See that course evaluation forms are available for the students to fill out before they leave.
11. Direct the instructors and the equipment manager to break down the patient assessment stations. Bring all of the equipment to the staging area. The equipment manager should stay at the staging area to verify that the equipment is returned to the appropriate person. Borrowed equipment should be cleaned and repaired before returning.
12. Arrange for the post-course faculty meeting:
    a. Have available the collated student records for the faculty to review.
    b. Appoint a recorder to document the results of the written exam, practical practice, practical test, practical retest (if any), and final faculty decision, using the form provided.
    c. Collect comments from the faculty about the course and teaching material.
    d. Distribute the faculty stipends (if any).
    e. Pay the models (unless other arrangements have been made).
13. Verify with the equipment manager that the equipment has been returned to the appropriate sources.
14. Prepare and distribute the following to those students who have waited in order to get their grades immediately:
    a. Participant scores.
    b. ITLS cards and certificates.
    c. Letter of attendance.

One Week After the Course
1. Prepare and mail, if not distributed at the close of the course, the following:
    a. ITLS cards and certificates —It is your (and the chapter/training centre's) responsibility to see that the students get their cards in a timely manner. Students must receive their cards within 30 days.
    b. Letters of attendance or ITLS certificate (for students who failed the course – do not include ITLS card attached to certified).
    c. Thank you letter to faculty.
2. Check all invoices and bills prior to payment. Make a course financial statement.
3. Hold a staff critique.
4. Enter all course data into the ITLS CMS.
5. Remit course fees to the chapter/training centre office. In some chapters/training centres, course coordinators are not authorized to print ITLS cards until fees have been paid.
6. Inventory, clean, repair, and return all equipment to the proper local facilities. Thank all individuals who provided support for the course.

EQUIPMENT

Whenever possible, equipment used in the course should match equipment regularly used by the students taking the course. For example, when teaching IO insertion, it is better to use the actual product the students regularly use than teach them on a device they may never see. Equipment should be assessed and inventoried 2 to 3 weeks prior to the course. When borrowing equipment, the equipment manager (see Delegating Tasks, earlier in this Section) should use a detailed checklist to see that *all* equipment is properly identified as to ownership and condition. Both before and after the course, it is advantageous to have staging areas, where equipment is grouped by source. These areas should have limited access and should be used to inventory and label equipment carefully. Any borrowed equipment should be returned clean and in good repair. This step is often neglected at the close of the course because of the fatigue and the natural urge to "wrap it up and go home." The equipment list is lengthy, and a great deal of time is required for determining needs and inventory. Equipment needs will vary from course to course, depending on the number of students and the scenarios chosen.

The following are common sources for equipment:
1. Regional EMS offices.
2. Local EMS training departments.
3. Hospitals.
4. Prehospital provider services.

Equipment acquisition and management can be one of the most time-consuming and frustrating aspects of course coordination. The exact number of duplicate pieces of equipment is dependent on few key factors:

1. Ratio of students to faculty at each skill station (maximum is 6:1)
2. Number of concurrently running skill stations

   EXAMPLE: If you have 18 students and want them all to be in the same skill station (e.g., airway) at the same time, you would need 3 sets of skill station equipment. However, if you have 3 different skill stations running concurrently (e.g., airway, splinting, vascular access) and rotated groups through them, you would only need 1 set of each skill station equipment.

Specific skill station equipment lists are provided in Section 4.

FREQUENTLY ASKED QUESTIONS

Who Can Teach the Provider Course?

ITLS courses must be taught by certified ITLS instructors. Individuals who complete an Advanced Provider course are eligible to teach Basic and Advanced-level courses. Individuals who complete a Basic Provider course may teach only Basic-level courses.

Physicians who are Board certified in emergency medicine, or who are ATLS providers, or who actively participate in and teach trauma care, may take the ITLS Instructor course without taking the Provider course.

In unusual circumstances, a physician or other EMS provider (EMT, nurse, nurse practitioner, or physician assistant) who has not taken the ITLS Instructor course may help teach an ITLS course. However, this may be done only with the permission of the ITLS chapter or training centre medical director or coordinator. These requirements are necessary to maintain the high quality of ITLS courses.

The complete process and requirements to become an ITLS Instructor is detailed in the "Instructor Training Course" section below.

What Must Be Taught in an ITLS Provider Course?

In 2017, ITLS updated its Provider course requirements to reflect a Core Curriculum model. The following core content is now the requirement for all ITLS Provider courses:

- Introduction to Trauma as a Disease
- Trauma Assessment and Management
- Shock and Hemorrhage Control
- Traumatic Cardiac Arrest
- Trauma in Pregnancy
- Pediatric Trauma
- Geriatric Trauma

While these are the required topics for all ITLS Provider courses, it does not mean that these subjects are the only subjects that should be taught. The course must continue to be a minimum of 16 hours. The local course coordinator in consultation with course medical director will have the flexibility to decide what additional subjects should be added to the course to make it a complete program

What Constitutes Course Completion?

To become a certified ITLS Provider, a student must attend the entire 16-hour course (all lectures and skill stations) and pass the Written Exam and Patient Assessment Practical Exam. ITLS providers will receive a card and/or certificate from the ITLS chapter or training centre confirming that they have satisfactorily completed the course. Certification is good for 3 years or whatever length is chosen by the ITLS program. Such certification does not guarantee future performance, nor is it a form of licensure of any kind. Students who fail either the written or the practical examination after retesting will be given documentation of attendance so they

may receive continuing education credit.

Students who successfully complete the Written Exam but are unable to pass the practical skills may receive a certificate of course completion with continuing education hours, but not an ITLS card.

What is the Pass/Fail Criteria?

Students must attend all lectures and skill stations; obtain at least 74% on the Written Exam; and "Competent" or "Proficient" on the Patient Assessment Practical Exam in order to pass the course.

What Is the Retest Policy?

Students who fail only the Patient Assessment Practical Exam
- Will usually be retested on the same day (time permitting) or given the opportunity to retest within 6 weeks. If possible, the evaluator who initially rated the student as "inadequate" should not conduct the retest. Students may not retest in order to raise a passing grade.

Students who fail only the Written Exam
- May not retake it immediately but will be given an opportunity to retest after having had time to review the material and study identified areas of weakness. The retest will usually be scheduled within 6 weeks. Students who pass the retest will pass the course. Students who fail the retest *may* be provided an opportunity to retake the course at no charge or for a reduced charge. Students may not retest in order to raise a passing grade.
- The Written Exam may not be modified in any way. Students should answer the exam questions to meet the ITLS curriculum.
- Students who fail the Written Exam due to language or translation issues may work with an Instructor or Course Coordinator on site to determine if failure was due to language. If so, the Instructor may restate the failed question(s) in the student's native language.

Students who fail both the Written Exam and the Patient Assessment Practical Exam
- Will be asked to repeat the course.

What Does Certification Mean?

Certification as an ITLS provider or instructor means that the individual has passed an ITLS course taught by ITLS instructors under the sponsorship of the ITLS organization. It does not certify future performance, nor does it confer licensure of any kind.

How Does an ITLS Provider Maintain Certification?

ITLS providers may maintain their certification by taking an ITLS provider or recertification course every 3 years or whatever length is deemed appropriate by the chapter or training centre.

Recertification may be obtained by repeating the full ITLS Provider course, by taking an ITLS

Provider Recertification course, or by completing the ITLS Rapid Renewal Provider Update online course and passing the Written Exam at a Testing Component course.

Where Do I Get the Pre-test and Post-test?

Students should receive the course pre-test and pre-test answer key with their ITLS course manual at least 30 days prior to the course. The pre-test is used as a teaching tool for course preparation. Post-tests are only available to course coordinators in order to ensure exam security.

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
  2. Proficient on 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 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 of $45 USD per student (the cost of the Instructor Course Online Component registration).

The full ITLS Instructor program must be completed within 1 year, 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

It is essential that the Online Component be completed in full before the student attends the Classroom Component. The didactic content of the Online Component lays the framework for what will be taught in the Classroom Component.

Instructor Course Classroom Component

The Classroom Component is a 6.75-hour hands-on course at which instructor candidates will review and practice facilitating skill stations, administering testing procedures, and evaluating student performance. The Classroom Component content and activities are outlined in a series of 5 Lesson Maps. The Lesson Maps provide the essential information needed to be able to successfully conduct the Classroom Component and correspond to the agenda below. The Lesson Maps were developed to ensure consistency in the delivery of the ITLS Instructor program. They provide guidance to ensure a great experience for instructor candidates and instructor trainers alike.

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 for the Lesson Maps as well as the detailed requirements for running a successful Classroom Component Course. This material is available from the ITLS International.

Instructor Monitoring Requirements

Instructor candidates must be monitored teaching a lecture, skill station, and patient assessment testing at an ITLS Provider course. At the course, the instructor candidate is paired

with an experienced instructor during skill station teaching and patient assessment scenario teaching and testing. Monitoring of the instructor candidate is usually done by an approved Affiliate Faculty member, though chapters and training centres may permit other instructor roles such as course coordinators or course medical directors to participate in this responsibility.

It is your responsibility as a Classroom Component coordinator to be up-to-date on the procedures for instructor monitoring within your local chapter or training centre. At the conclusion of the Instructor Course Classroom Component, you will give the instructor candidates information about how to complete the Instructor Monitoring process.

ITLS does not specify how many courses the instructor candidate must be monitored teaching. This is based on the monitoring instructor's observations and feedback. It is not unreasonable to expect some instructor candidates to attend a second course to build confidence. The decision should be agreed upon by the monitoring instructor and the instructor candidate, in conjunction with the chapter or training centre administrators as needed.

Once the candidate has successfully completed the Instructor Monitoring requirements, the Affiliate Faculty or other monitoring instructor should complete the Instructor Monitoring Form (included in Section 4) and submit it to the chapter or training centre for records.

The Instructor card and certificate should not be issued until all monitoring requirements have been met. Responsibility for the issuance of the Instructor Card and certificate may lie with the chapter or training centre coordinator directly, or may be a responsibility of the Classroom Component coordinator. Again, make sure you are clear on the procedures within your ITLS chapter or training centre.

SECTION 3 – COURSE INSTRUCTION

TEACHING THE ITLS PROVIDER COURSE

Course Teaching Objectives
1. Teach fundamental hands-on trauma care.
2. Teach a target audience of advanced EMTs, paramedics, and registered nurses for the advanced course and a target audience of EMT-Bs and first responders for the basic course.
3. Maintain quality assurance so that the same fundamentals are taught consistently throughout the world yet allow for regional differences.
4. Keep the course current.
5. Keep the course short enough to be taught in a minimum of 16 hours.
6. Strive to make teaching and learning ITLS simple and practical.
7. Keep the course conservative and non-controversial so that the principles taught reflect the current standard of care.

Instructor Roles and Responsibilities
The Hippocratic Oath required the medical practitioner to swear to teach the art of medicine to others. This concept is still very important. Medicine is not just a trade or craft; it is an art, and we as practitioners must give something back to the art to continue to improve it. Teaching is a wonderful way to accomplish this. Teaching is extremely important in that our influence may pass from generation to generation, doing good or harm long after we are gone. Donating our precious free time to teach others how to save lives is one of the highest traditions of medicine.

ITLS instructors are responsible for knowing all of the ITLS material in order to present their assigned topic in a simple and easy-to-understand manner so that it ties in with the other parts of the ITLS course. It is just as important, whenever possible, for the instructors to remain available to the students to answer questions and provide individual help. This includes eating and socializing with the students. Often, students will not ask the questions they really want to ask until they know the instructor and feel confident that the instructor will not ridicule them. It is understood that there will be times that the instructors can be present only long enough to present their material, but, whenever possible, the instructors should be present for the entire course.

The ITLS curriculum is based upon the best available scientific evidence regarding the care of the trauma patient. Not every aspect of trauma care is supported by such evidence. When there is none available, ITLS relies on a consensus reached among trauma care professionals and educators from around the globe to guide care in those areas. The materials used in the course are reviewed regularly by the ITLS Editorial Board and updates and changes are made regularly to reflect the best practices in trauma care.

It is extremely important that when teaching the course, the instructor should teach the

principles of patient assessment and management set forth by ITLS. If one teaches material that is in conflict with the text, the students may become confused. If you have concerns about the material, please contact your chapter affiliate faculty member or chapter medical director. Do not engage in debate about the course content during the course. If you do not agree with the material and approach put forth by ITLS, please do not agree to teach. Please do contact your chapter medical director with your concerns.

The goal of every ITLS instructor is to teach the student skills and knowledge to provide the best possible prehospital trauma care.

Case-Based Learning

ITLS encourages its chapters and training centres to incorporate the principles of case-based learning into their courses. With case-based learning, students develop skills in analytical thinking and reflective judgment by active participation in real-life scenarios. Case-based learning creates the ability to address the cognitive, affective and psychomotor domains of learning. Learners are guided through advancement from learning toward mastery and are introduced to multiple perspectives through applied group discussions. The case-based model encourages learners to take responsibility, accountability and authority in their learning.

The ITLS Case-Based Learning Guide and Practice Scenarios provides additional background on case-based learning, a repository of scenarios (regularly being updated and expanded) and the ITLS scenario evaluation rubric. These materials can be obtained from ITLS International.

Lectures

ITLS course lectures are designed to present both basic and advanced information geared to the emergency care of the trauma patient. Please keep this in mind as you give your lecture, and refrain from adding unnecessary advanced material more applicable to the hospital environment. This may be modified if you are teaching hospital personnel. Feel free to add material that is practical and pertinent but remember to keep the lecture within the time allotted. The students should have read and studied the chapters. When you lecture, you should present, reinforce, and explain only the key concepts. ITLS slides are not divided for advanced and basic courses. If you are teaching basic EMTs or first responders, please explain that they are not responsible for the advanced procedures mentioned on the slides; however, the inclusion of these procedures allows the students to be familiar with situations in which calling for an advanced unit, if available, would be beneficial.

Lectures available:
- Introduction to Trauma as a Disease
- Trauma Assessment and Management
- Shock and Hemorrhage Control
- Airway Management
- Thoracic Trauma
- Spinal Trauma and Spinal Motion Restriction
- Head Trauma and Traumatic Brain Injury
- Abdominal Trauma

- Extremity Trauma
- Traumatic Cardiac Arrest
- Burns
- Pediatric Trauma
- Geriatric Trauma
- Trauma in Pregnancy
- Patients Under the Influence

Refer to the course PowerPoints for topic-specific key points and instructor notes

Skill Stations

Skill stations are the heart of the ITLS course and are a key component to student success. The skill stations should complement and reinforce 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
5. Spine Management Skills
6. Extremity Trauma Skills

Refer to the ITLS student textbook for specific skill station criteria

Practice and Testing Stations

The ability to assess and manage trauma patients rapidly is the goal of the ITLS course. 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 textbook.
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. There should be two instructors at each assessment station: one to interact with the team and the other to document performance. If two instructors are used, the two instructors should discuss the performance and assign scoring when the assessment station is complete.
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 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 introduce themselves and give their profession, level of training, and type of work. Use the appropriate setting (prehospital, occupational health/industrial) based on the students' background and work setting.
3. Remind students that they have medical direction available on the radio.
4. Remind students that this is an interactive scenario. They may have to ask for 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.

Evaluating Practice and Testing Stations
The overall objective for the ITLS course is the learner will be able to perform a patient assessment and rapidly identify and manage critical and life-threatening conditions. To meet this objective requires the learner to complete a scenario at a minimum level of Competent. A learner cannot do this unless they know how to assess and provide interventions indicated.

Practice evaluations are meant to assess the learner's ongoing progress to identify their strengths and weaknesses. In addition to instructor feedback, encourage peer review and self-assessment.

Testing evaluations are meant to assess the learner's performance and knowledge. Due to time constraints, instructor feedback should be very brief and done in private.

Performance Criteria

Inadequate Rating
1. Does not identify existing hazards placing 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

Competent Rating
1. Identifies existing hazards and does not place 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 directs 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 identifies all existing and potential hazards and does not place 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 carries with it a level of mastery that is above the minimum and is the degree of competence or expertise. "Proficient" lives in a sliding scale framework (a subjective observation) where one can strive to be more proficient.

SECTION 4 – FORMS AND CHECKLISTS

Overview

This document includes sample forms and checklists provided by International Trauma Life Support for use in planning, organizing, and executing ITLS courses. The forms that follow may be modified or personalized as a chapter or training centre deems appropriate. However, it is important to maintain the general content presented on these sheets.

Available Checklists & Forms

All of the forms included in this document are listed below with a short explanation of the form's purpose and use.

- **Skill Station Equipment Checklists**: Equipment needed for individual skill stations.
- **Scenario Grade Sheet (Task Analysis):** Optional tool for faculty to use to track students' task completion during scenario performance.
- **Course Coordinator Checklist:** To be completed by course coordinators as they plan, organize and complete a course.
- **Proposed Course Budget & Financial Summary:** To be completed by course coordinators as they plan, organize and complete a course.
- **Post-Course Checklist:** To be completed by course coordinators after a course and sent with course materials and course fees to chapter/training centre office. Must be received within designated time frame after course.
- **Confirmation Letter to Course Faculty:** To be completed by course coordinators and sent to all course faculty members in advance of a course. Should accompany any additional supporting materials for instructors, including assignments and teaching materials.
- **Confirmation Letter to Course Registrants:** To be completed by course coordinators and sent to all course registrants in advance of a course (when student's registration is received). Should accompany any additional supporting materials for students, including the textbook and pre-test materials.
- **Student Guide to ITLS:** To be included with student pre-course materials; provides a brief overview and expectations for students, to better prepare them for success at a Provider course.
- **Affiliate Faculty Course Evaluation:** To be completed by affiliate faculty member(s) at the completion of course.
- **Instructor Monitor Form:** To be completed by affiliate faculty member(s) to evaluate an instructor candidate's performance teaching at a Provider course.
- **Student Evaluation for Provider Course:** To be completed by participants at the conclusion of the course. Evaluation may be modified to be appropriate for any type of ITLS course. Content of evaluation may also be modified at the discretion of the chapter/training centre.

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.

Patient Assessment Station

Item	Quantity
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
Nine-foot backboard straps	4
Padding	2
Trauma box or "jump kit" (materials below)	1
Each trauma box should contain the following:	
· Stethoscope	1
· Blood pressure cuff	1
· Pocket mask	1
· 4-inch elastic wrap (ACE)	4
· 6-inch elastic wrap (ACE)	2
· Gauze rolls	4
· 4 ´ 4 gauze pads (unsterile)	20
· Wide adhesive tape	1 roll
· One-inch adhesive tape	3 rolls
· Oxygen mask and nasal prongs	1

Airway Station

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 flush and charger	1
Manual suction device (optional)	1
Tonsil tip	1
Suction tubes (14–18 Fr.)	1
Tongue blades	2
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
Adult face mask (#4–5)	1
Pediatric face mask (#1–3)	1
Oxygen cylinder with regulator	1
Stand for oxygen cylinder	1
Oxygen tubing	1
Nasal cannula	1
Nonrebreather mask	1
Pulse oximeter	1
Stethoscope	1
Endotracheal tubes (7–9 & 3.5)	1 each
Stylet (adult, pediatric)	1 each
10-cc syringe	2
Laryngoscope	1
Spare batteries	2
Curved blades (#3–4)	1 each
Straight blades (#1–4)	1 each
Spare bulbs	1 each
Manufactured tube holder	1
Blind insertion airway device (BIAD)	1
Waveform end-tidal CO_2 monitor	1
Colorimetric CO_2 detector (optional)	1
Esophageal detection device (optional)	1

Thoracic Trauma Station

Item	Quantity
Chest decompression mannequin (anterior and lateral approach)	1
Material below to build if a mannequin is not available:	
Section of pork ribs at least 12 × 12 inches	1
Small trailer wheel inner tube	1
Valve core remover	1
Hand, foot, or electric air pump	1
8-fluid-ounce bottle of tire puncture sealer	1
Roll of plastic wrap	1
Roll of duct tape or foam latex tape	1
One-way valve	1
Flutter valve #1	1
Flutter valve #2	1
Plastic 10-cc syringe	2
Penrose drain	1
14-gauge over-the-needle catheters	2
Paper towels	2 rolls
Asherman chest seal (optional)	1

Shock and Hemorrhage Control Station

Item	Quantity
Exam gloves (non-latex, multiple sizes)	1 box each
IO mannequin	1
Paper towels	1 roll
Intraosseous needles	2
Infant or pediatric size mannequin	
Length based resuscitation tape	1
Manufactured tourniquet	1
Improvised tourniquet	
Wound packing gauze (hemostatic optional)	4

Spinal Management Station

Item	Quantity
Exam gloves (non-latex, multiple sizes)	1 box each
Live model	1
Rigid cervical collar (assorted sizes or adjustable)	1 each
Long backboard	1
Nine-foot backboard straps	4
Scoop stretcher or Reeves sleeve	1
Head or cervical immobilization device	1
KED or similar vest-type extrication device	1
Elastic wrap (ACE)	1
Chair	4
Head or cervical immobilization device	1
Padding	1
Tape	4 rolls
Motorcycle helmet (full face)	1
Football helmet with face protector	1
Open face helmet	1
Shoulder pads	1 set
Vehicle (optional)	1

Extremity Trauma Station

Item	Quantity
Live model	2
Padding	2
Tape	1
Traction splint (e.g., Thomas, Hare, Sager)	1
Cravats	2
Manufactured pelvic splint or improvised (e.g., sheets)	1

ITLS SCENARIO GRADE SHEET (TASK ANALYSIS)

Student Name:	Date:	Scenario #:	[ ] Basic [ ] Advanced	[ ] Practice [ ] Test [ ] RT
Time Started:	Time Primary completed:	Time Transported:		Time Secondary completed:

ACTION	✔	COMMENTS
PATIENT ASSESSMENT - PRIMARY SURVEY		
Scene Size-up Standard precautions		
Scene Hazards		
Number of Patients		
Need for More Help or Equipment		
Mechanism of Injury		
General Impression Age, Sex, Weight		
General Appearance		
Body Position		
Position in Environment		
Patient Activity		
Obvious Severe Injury or Major Bleeding		
LOC AVPU		
Airway Snoring, Gurgling, Stridor, Silence		
Breathing Present? Rate, Depth, Effort		
Radial/Carotid Pulses Present? Rate, Rhythm, Quality		
Skin Color, Temp, Moisture, Capillary Refill		
Uncontrollable external hemorrhage?		
Head and Neck Major facial injuries		
Bruising, swelling, penetrations		
Subcutaneous emphysema?		
Neck vein distention?		
Tracheal deviation?		
Chest Look: Asymmetry, Contusion, Penetrations, Paradoxical Motion, Chest Rise		
Feel: Tenderness, Instability, Crepitation		
Breath Sounds Present? Equal?		
If decreased breath sounds, percussion		
Heart Tones		
Abdomen Look: bruising, penetration/evisceration		
Gently palpate: tenderness, rigidity, distention		
Pelvis Deformity, penetrating wounds, TIC		
Lower Extremities Upper: swelling, deformity, TIC		
Lower: scan wounds, swelling, deformity		
Motor, sensory before transfer to backboard		
Upper Extremities Scan wounds, swelling, deformity		
Motor, sensory before transfer to backboard		
Posterior Penetrations, deformity, edema		
IF CRITICAL, TRANSFER TO AMBULANCE		

ACTION	✔	COMMENTS
Baseline Vital Signs HR, RR, BP		
History SAMPLE		
IF ALTERED MENTAL STATUS Pupils Size? Reactive? Equal?		
Glasgow coma scale		
Orientation, emotional state		
Signs of cerebral herniation		
Medical identification devices		
Blood glucose		
Critical transport decision		

ACTION	✔	COMMENTS
PATIENT ASSESSMENT - REASSESSMENT EXAM		
Subjective Ask patient if changes in how feels		
Reassess mental status LOC, pupils		
If altered mental status Recheck GCS		
Reassess airway		
Reassess breathing and circulation Recheck vital signs		
Skin color, condition, temperature		
Check for neck vein distention		
Check for tracheal deviation		
Recheck chest		
Breath sounds: Quality? Equal?		
Reassess heart sounds		
Reassess abdomen - if possible injury Development of tenderness, distention, rigidity		
Check all identified injuries For example: Lacerations for bleeding PMS distal to injuries on extremities Flail segments Pneumothorax Open chest wounds		
Check all interventions For example: ET tube for patency and position Oxygen for flow rate IVs for patency and fluid rate Seals on sucking chest wounds Patency of decompression needle Splints and dressings Impaled objects for stabilization If pregnant, body position Cardiac monitor, $Sp0_2$, $ETCO_2$		

GRADE KEY: [✔] Completed, skill performed in sequence
[D] Delayed, performed out of sequence
[X] Skill not performed, too late or incorrectly   **Sept 2019**

ACTION	✔	COMMENTS
PATIENT ASSESSMENT - SECONDARY SURVEY		
Repeat Initial Assessment		
Repeat vital signs		
Consider Cardiac monitor, $Sp0_2$, $EtCO_2$		
LOC AVPU		
If conscious, orientation and emotional state		
If altered mental status, GCS		
If altered mental status, blood glucose		
If altered mental status, $Sp0_2$		
If altered mental status, consider naloxone		
Pupils Size, equality, response to light		
Motor Move fingers and toes?		
Sensation Feel fingers and toes?		
If unconscious, respond to pinch?		
Head DCAP-BTLS-TIC		
Raccoon eyes		
Battle's signs		
Drainage from ears or nose		
Mouth		
Reassess airway		
Neck DCAP-BTLS-TIC		
Neck vein distention?		
Tracheal deviation?		
Chest DCAP-BTLS-TIC, paradoxical movement		
Instability and crepitation		
Breath sounds Present? Equal? Quality?		
If decreased breath sounds, percussion		
Heart sounds		
Recheck wound seals, injuries		
Abdomen Signs of blunt or penetrating trauma		
Palpate all quadrants for tenderness, rigidity		
Pelvis and Extremities DCAP-BTLS-TIC		
PMS distal to injuries on extremities		
IF CRITICAL, TRANSPORT IMMEDIATELY		

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 patents, 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:

INTERNATIONAL TRAUMA LIFE SUPPORT
COURSE COORDINATOR CHECKLIST

CMS Course #:   **Course Date:**

Course Coordinator:

Course Facility/Location:

I. THREE MONTHS BEFORE THE COURSE

A. Prepare budget _____

B. Request approval of course through CMS or from chapter/training centre committee _____

C. Identify and confirm
1. Medical Director _____
2. Course Coordinator _____
3. Affiliate faculty _____

D. Arrange course facilities
1. Course location _____
2. Lodging _____
3. Refreshments _____
      a. Coffee _____
      b. Lunches _____
      c. Faculty dinner _____
4. Course equipment
      a. AV equipment _____
      b. Projector _____
      c. Podium _____
      d. Skill station equipment _____
(Refer to ITLS Instructor Manual)

E. Contact potential faculty, station assistants, patient models
1. Faculty
      a. _____
      b. _____
      c. _____
      d. _____
2. Station Assistants
      a. _____
      b. _____
3. Patient Models
      a. _____
      b. _____

F. **Arrange course schedule** _____

G. **Create and distribute course advertisement** _____

II. TWO MONTHS BEFORE THE COURSE

A. **Order textbooks** _____

III. ONE MONTH BEFORE THE COURSE

A. **Prepare pre-course packets**
    1. Student pre-course packets
        a. Introductory letter _____
        b. Hotel accommodation information _____
        c. ITLS textbook _____
        d. Pretest _____
        e. Course agenda _____
        f. Map _____
        g. Student Guide to ITLS _____
    2. Faculty pre-course packets
        a. Introductory letter with assignments _____
        b. Hotel accommodation information _____
        c. Lecture slides _____
        d. Course schedule _____
        e. Course material _____
        f. Testing scenario _____
        g. Map _____

B. **Distribute textbooks and pre-course packets to students** _____

C. **Distribute pre-course packets to faculty** _____

IV. TWO WEEKS BEFORE THE COURSE

A. **Confirm patient models** _____

B. **Confirm station assistants** _____

C. **On-site packets**
    1. Students _____
        a. Name tag _____
        b. Final course schedule _____
        c. Faculty list _____
        d. Student list _____
        e. Rotation schedule _____
        f. Course evaluation forms _____

2. Faculty
        a. Name tag _____
        b. Final course schedule _____
        c. Faculty list _____
        d. Student list _____

V. DAY BEFORE THE COURSE

A. Equipment placed in staging area _____

B. Pre-course faculty meeting _____

C. Arrange educational facility _____

VI. DAY OF THE COURSE

A. Arrive early to confirm seating, temperature, refreshments and registration area _____

B. Register students _____

C. Introduce faculty _____

D. Set-up skill stations _____

E. Moulage models _____

F. Faculty meetings as necessary _____

G. Provide feedback to students _____

H. Conduct post-course faculty meeting _____

VII. POST COURSE

A. Thank-you letters to faculty, station assistants and patient models _____

B. Course report forms and fees forwarded to the chapter/training centre office _____

C. Reimburse faculty and staff _____

D. Distribute course completion cards _____

INTERNATIONAL TRAUMA LIFE SUPPORT
PROPOSED COURSE BUDGET & FINANCIAL SUMMARY

CMS Course #:   **Course Date:**

Course Coordinator:

Course Facility/Location:

RECEIPTS:
I. Tuition:
_____ Participants @ $ _____ each
TOTAL $_____

II. OTHER GRANT MONIES (IF APPLICABLE): $ _____
TOTAL RECEIPTS $ _____
DISBURSEMENTS:

I. Travel Expenses / Subsistence
A. Faculty & Staff
1. _____ $ _____
2. _____ $ _____
3. _____ $ _____
4. _____ $_____
5. _____ $ _____
6. _____ $ _____
7. _____ $ _____
8. _____ $ _____

B. Coordinator
1. _____ $ _____

C. Assistants (Station assistants and patient models, etc.)
1. _____ $ _____
2. _____ $ _____
3. _____ $ _____
4. _____ $ _____
5. _____ $ _____
6. _____ $ _____
7. _____ $ _____
8. _____ $ _____

II. Course Equipment/Material
A. Material
1. _____ $ _____
2. _____ $ _____

B. Office Supplies/ Services
1. Postage $ _____
2. Photocopies $ _____
3. _____ $ _____
4. _____ $ _____
5. _____ $_____

C. Expendable Equipment
1. _____ $ _____
2. _____ $ _____
3. _____ $ _____
4. _____ $ _____

D. Non-Expendable Equipment
1. _____ $ _____
2. _____ $ _____
3. _____ $ _____
4. _____ $ _____

E. Facilities/Services
1. Room Rental $ _____
2. Audio-Visual Rental $ _____
3. Coffee Break(s) $_____
4. Lunch(es) $ _____
5. Dinner(s) $ _____
6. Administrative Charges $ _____
7. _____ $ _____
TOTAL $ _____

III. Indirect Cost Charges
A. ITLS chapter/training centre fee
_____ Participants @ $ _____ each

B. ITLS International fee
_____Participants @ $ 17 each

TOTAL $_____

TOTAL RECEIPTS $ _____

Minus TOTAL DISBURSEMENTS $ _____

TOTAL NET GAIN OR LOSS $ _____

COURSE COORDINATOR   DATE

_____   _____

INTERNATIONAL TRAUMA LIFE SUPPORT
POST-COURSE CHECKLIST

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*Please complete and send this form with payment to your chapter or training centre along with an Affiliate Faculty course evaluation form and Instructor Monitor forms (if applicable).

CMS Course #:   **Course Date:**

Course Coordinator:

Course Facility/Location:

Student Course Fees

(Note: Fees below should reflect the chapter/training centre fees)

Number of:

_____ Advanced Provider certification   x $<AMOUNT> = $_____

_____ Advanced Provider recertification   x $<AMOUNT> = $_____

_____ Basic Provider certification   x $<AMOUNT> = $_____

_____ Basic Provider recertification   x $<AMOUNT> = $_____

_____ Instructor certification (Basic or Advanced)   x $<AMOUNT> = $_____

_____ Pediatric Provider certification   x $<AMOUNT> = $_____

_____ High Threat Provider certification   x $<AMOUNT> = $_____

_____ Access certification   x $<AMOUNT> = $_____

_____ Duty to Respond certification   x $<AMOUNT> = $_____

_____ Rapid Renewal Provider recertification   x $<AMOUNT> = $_____

$_____Total Enclosed

Please put an "X" after each item enclosed:

1. Affiliate Faculty Course Evaluation form _____

2. Instructor Monitor forms (if applicable) _____

3. Payment of fees _____

     Payment method: _____

INTERNATIONAL TRAUMA LIFE SUPPORT
CONFIRMATION LETTER TO COURSE FACULTY

Date:

To: ITLS Faculty

From: Course Director

RE: Assignments - Course Location and Date

Thank you for your agreement to serve as an instructor at the **\<TYPE OF COURSE\>** to be held on **\<DATE OF COURSE\>** at **\<NAME OF FACILITY\>**, **\<MAILING ADDRESS\>**.

Agendas indicating the assignment of lectures, skill stations and patient assessment testing are enclosed. Your **assignments** are highlighted on the agendas.

If you are lecturing, the slides for your topic are enclosed. They should be returned to **\<COURSE COORDINATOR\>** immediately following your lecture.

Please review the ITLS Instructor Guide for station objectives and important points when preparing for the teaching stations. For patient evaluation and testing, we have enclosed a copy of your assigned scenario. Instructors are responsible for orienting the models to their roles *prior* to the testing session.

Enclosed are:
• A map indicating the general area of the course location
• Faculty informational material
• Scenarios for the testing stations
• Course agendas
• Slides for lecturing

If you have any questions, please contact **\<COURSE COORDINATOR\>** at **\<PHONE NUMBER\>** or **\<EMAIL ADDRESS\>**.

Sincerely,

Course Director

+Enclosures

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 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 extremely important that you be 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
ITLS is a global organization dedicated to preventing death and disability from trauma through education and emergency trauma care.

What to Wear at 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 take the Written Exam and the Patient Assessment Practical Exam. You will not be required to test on each of the skills taught in the skill stations. However, you will be required to use those skills correctly in the management of your simulated patients. The Written Exam is composed of 50 questions to be completed in 60 minutes and requires a grade of at least 74% to pass. Students are permitted to use the textbook or personal (written) notes while taking the ITLS Written Exam. No electronic devices will be permitted during testing. Patient assessment is a practical exam, and you are graded on your overall management of the problem. Students demonstrating superior performance may 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 so that you have time to practice each skill during the brief time available.

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 team leader once.
2. Before entering the room, be sure you understand your duties.

Team Leader: You are responsible for the overall performance of the team. You must direct other team members to do certain actions if they do not do them on their own. You must perform the scene size-up, see that the spine is stabilized, and perform the patient assessment. You are the only member who should interact directly with the instructor. The other team members report to you, and you are responsible for their actions. You should help carry some of the equipment to the patient.

Rescuer 2: While the team leader is sizing up the scene, you should get the cervical collar, trauma box, and oxygen equipment and carry it to the patient. Do not approach the patient until the team leader states that it is safe to do so. When you approach the patient, you will place the equipment within easy reach and immediately stabilize the patient's cervical spine (unless the team leader elects to do this). You must maintain stabilization of the neck with either your hands or your knees until the patient is transferred to a backboard and the head immobilizer is applied. You are also in charge of maintaining the airway and appropriate ventilation. The team leader should give you ventilation instructions as soon as the airway has been examined. If the team leader forgets to give you instructions, you may ask, "Are there any ventilation instructions?"

Rescuer 3: While the team leader is surveying the scene, you should get the backboard and head immobilizer, to have ready if needed. You should assist with stopping bleeding, removing a helmet, dressing wounds, and performing other tasks as delegated. If directed, you should help transfer the patient to the backboard and secure the straps. Team members do not have to stand around waiting to be told to do something, but they must not take over the evaluation of the patient. The team leader may elect to stabilize the neck but is still responsible for assessing the patient and ensuring that all procedures are performed. This is accomplished more easily if Rescuer 2 is allowed to maintain stabilization.

INTERNATIONAL TRAUMA LIFE SUPPORT
AFFILIATE FACULTY COURSE EVALUATION

Course Type:

Course Location: **Course Date:**

Course CMS # :

Medical Director:

Course Coordinator:

Number of Students:_____   Number Passed: _____   Number Failed:_____

                                   Number Incomplete: _____   Number Retest: _____

		Acceptable	Unacceptable
1.	Pre-Course Planning	_____	_____
2.	Adequate Facilities	_____	_____
3.	Adequate Number of Faculty	_____	_____
4.	Written Material Distributed	_____	_____
5.	Audio / Visual Aids	_____	_____
6.	Adequate Amount of Equipment	_____	_____
7.	Didactic Presentations	_____	_____
8.	Skill Stations	_____	_____
9.	Patient Assessment Stations	_____	_____
10.	Written Examinations	_____	_____
11.	Problem Solving	_____	_____
12.	Post-Course Faculty Meeting	_____	_____

Comments:

Affiliate Faculty Signature: Date:

Printed Name:

INTERNATIONAL TRAUMA LIFE SUPPORT
INSTRUCTOR MONITOR FORM

Instructor Candidate's Name:

Monitoring Location & Dates:

Course CMS #:

Course Coordinator:

Initial Instructor Course Date & Location:

Please circle the number that best describes evaluation of the instructor's performance:

4 = Excellent	3 = Good	2 = Unsatisfactory	1 = Poor	N/A = Not observed

1. Lecture

Topic _____

- Overall knowledge	4	3	2	1	N/A
- Speaking ability	4	3	2	1	N/A
- Ability to handle questions	4	3	2	1	N/A
- Use of audiovisuals	4	3	2	1	N/A

2. Skill Station

Station _____

- Knowledge of objectives	4	3	2	1	N/A
- Presentation	4	3	2	1	N/A
- Ability to handle questions	4	3	2	1	N/A
- Utilization of teaching aids	4	3	2	1	N/A

3. Patient Assessment Testing Station

Scenario # _____

- Knowledge of objectives	4	3	2	1	N/A
- Presentation of scenario	4	3	2	1	N/A
- Documentation	4	3	2	1	N/A

AVERAGE OF SCORES: _____

Comments:

Recommended for certification? _____ Yes _____ No

How many times has Instructor Candidate been monitored? _____

Affiliate Faculty Signature: _____ Date: _____

Printed Name:

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-

Please circle the number that best describes your opinion of each skill station:

	Excellent	Good	Average	Fair	Poor	NA
Assessment Skills	5	4	3	2	1	NA
Airway Skills	5	4	3	2	1	NA
Thoracic Trauma Skills	5	4	3	2	1	NA
Shock and Hemorrhage Control Skills	5	4	3	2	1	NA
Spine Management Skills	5	4	3	2	1	NA
Extremity Trauma Skills	5	4	3	2	1	NA

Please evaluate the expertise of each faculty member individually:

Faculty	Excellent	Good	Average	Fair	Poor	NA
	5	4	3	2	1	NA
	5	4	3	2	1	NA
	5	4	3	2	1	NA

	Excellent	Good	Average	Fair	Poor	No opinion
Your level of skill and comfort in the treatment of a trauma patient prior to taking this course?	5	4	3	2	1	NO
Your level of skill and comfort in the treatment of a trauma patient after taking this course?	5	4	3	2	1	NO

I am a: *(circle all that apply)*
_____ First Responder (EMR)   _____ Practical Nurse   _____ Physician Assistant
_____ EMT-B (EMT)   _____ EMT-P (Paramedic)   _____ Registered Nurse
_____ Physician (MD/ DO)   _____ EMT-I (AEMT)
_____ Other, please specify:_____

What is your age? _____ Under 30   _____ 30-40   _____ 40-50   _____ 50-60   _____ Over 60

How do you plan to use this information in your practice setting?

What was the strongest feature of this course?

What was the weakest feature of this course?

General comments and/or suggestions:

Thank you for your time and comments.

SECTION 5 – MOULAGE

OVERVIEW

The purpose of makeup or moulage is to aid students' assessment by making the patient scenario more realistic. The students will get the feel of an emergency situation more easily if the patient has injuries that appear genuine. Beautiful but delicate makeup is often destroyed before the first group of students is through their practice; thus, you must use judgment in applying makeup. Many injuries or signs of injury (distended neck veins, deviated trachea, sucking chest wound, flail chest) can be shown better (and last longer) by simply writing on a piece of white tape and sticking it to the skin in the appropriate place. If the student examines the patient and sees "distended neck veins" and "trachea deviated to the right" written on the tape, the effect is better than having to ask the instructor or having to guess what smudged or faded moulage once represented. Makeup is probably best used to simulate cyanosis or shock, bruising, lacerations, burns, or abrasions. Having an experienced makeup artist prepare the models is preferable, but with a little knowledge and practice, the average person can do a surprisingly good job.

Selecting Models

Treatment of the multiple trauma patient requires exposure of the injured areas, including the chest. All models should be instructed to wear suitable attire under their clothes.

If the "patients" have some knowledge of the symptoms pertaining to their "injuries," it will add to the realism. EMTs and nurses often make the best "patients," and it serves a learning experience for them. The faculty in each station should discuss with the model exactly how to portray his or her injuries. If you choose to do moulage, allow a minimum of 2 hours for model preparation.

Makeup Kit

A wound simulation kit is commercially available. It contains artificial blood, other makeup materials, and various plastic or rubber simulated injuries to be attached to the skin. You can assemble your own makeup kit at considerable savings. The following lists include many of the items necessary. Almost all of the material can be found at local hardware, grocery, or drug stores.

Item	Quantity
Isopropyl alcohol	1 bottle
Vaseline	1 jar
Paper towels	2 rolls
K-Y® Jelly	2 tubes
Cold cream	1 jar
Small hair dryer	1
Facial tissues	1 box
Glycerin	1 bottle
Spray bottle	2
Assorted sponges (to apply makeup)	multiple

Plastic cling wrap	1 roll
Rubber condoms	6
Red, blue, and black felt-tip pens	1 each
Bottle of waterless hand sanitizer/cleaner	1
Alka-Seltzer tablets	1 small bottle
Makeup colors: maroon, red, white, blue, brown, yellow, flesh, black	multiple
Artificial blood (theatrical supply)	1 pack
Plumber's putty (get at hardware store; it takes the place of mortician's wax)	1 can
Duo® surgical adhesive (theatrical supply)	1 bottle
Grease stick, black	1
Activated charcoal	1 small container
Irrigation bulb (to apply charcoal)	1
Tongue depressors (to mold putty)	1 box
Toothpicks (to mold putty)	1 box
Soft and stiff bristled artist brushes	1 each
Scissors	1 pair
Rubber gloves (unsterile)	1 box

Additional Materials:
- Pieces of bone (from baked chicken or turkey)
- Black blood (for the depths of wounds)—mix charcoal, white petrolatum, and blood powder.
- Coagulated blood—mix K-Y Jelly and powdered blood.
- Regular blood—mix liquid starch and food coloring or powdered blood.
- Sweat (diaphoresis)—mix two parts glycerin and one part water. Use in spray bottle.
- Ashes
- Dirt
- Pieces of broken clear plastic or Plexiglas®.

Skin Preparation

On areas where makeup is to be applied, first apply a thin layer of cold cream. This is very important for makeup removal later. In areas where wounds are to be attached (glued prostheses or molded putty), clean the skin of all oil and grease with a paper towel and alcohol.

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 patient's eyes—it burns.

- *Blood*. Simulated blood is used in wounds and on clothing to give 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 a plastic sheet under the patient to prevent the blood from coming into contact with tile or carpet.

- *Burns*. Cover the area with a thin layer of red or maroon makeup. Do not smooth it out uniformly; burns are not uniform. Now apply several "blisters" of Vaseline scattered over the area. Cover this with plastic cling wrap or facial tissue and press it down. You will have very realistic blisters where the plastic wrap covers the globs of Vaseline. Facial tissue can be torn to look like broken blisters. Apply black grease paint around the edges of the plastic wrap. Spray the area with a small amount of the glycerin–water mixture, and apply a thin layer of ashes, which should cover the edges well and give a uniform appearance. Don burned clothing.

- *Basilar skull fracture.* Put a few drops of blood in either ear. Allow a small amount to trickle down the face. Apply black makeup around eyes to simulate "raccoon eyes."

- *Abrasions*. Apply maroon liner to the area with a makeup brush or sponge. Smooth and thin the edges so they blend into the skin. Cover the wound with a thick layer of surgical adhesive and dry with hair dryer. When it is dry, pick and tear the center of the adhesive to resemble sloughed, abraded skin. Rub a small amount of maroon and red cream over and under the adhesive layer. Apply a small amount of glycerin and then clotted blood. Dirt also adds a realistic touch.

- *Contusions*. Because bruises are usually raised in the center, it is best to use an area of bony prominence for bruises. Apply red and maroon cream, mixed together. Thin the outside edge in an irregular manner. Use a brush to apply blue liner to the outer one-third of the red-maroon area. Do not blend in completely. It should have a mottled appearance.

- *Lacerations*. First clean the skin well with alcohol. With plumber's putty, fashion a thin layer (1/8-inch thick at the thickest part) on the clean skin. Feather the edges. Use the edge of the tongue depressor to make a gash across the putty. Use flesh-colored makeup over the entire area and the surrounding skin to blend the putty and skin. Apply black blood to the depth of the wound. Mix clotted blood and ashes and dab the mixture on the area; then pour a small amount of blood into the gash and allow it to trickle down.

- *Sucking chest wound.* Clean the skin with alcohol. Apply putty with one-half of an Alka-Seltzer tablet embedded in it. Feather the edges and make a hole in the putty to resemble a penetrating wound. Apply maroon or red makeup. Dab on a mixture of

blood and ashes. Now make a hole down to the Alka-Seltzer tablet. Just before the student comes in, pour a small amount of artificial blood down the hole onto the tablet. It will bubble like a sucking chest wound.

- *Penetrating object*. This wound is simulated with the same technique as lacerations and sucking chest wounds. Use enough putty to secure the penetrating object. Do not use heavy objects (they will pull the putty loose) or sharp objects (they may cause real lacerations). Use plastic, not glass.

- *Protruding intestines*. You may use a commercial moulage kit for this or make very realistic intestines from two rubber condoms filled with K-Y Jelly. The ends are tied off and wrapped around each other to simulate loops of intestines. Vascular markings are made with the red and blue felt-tip pens. Attach these to the skin and apply clotted and regular artificial blood.

- *Open fractures.* Commercial moulage is best for this, but if you must, apply and blend putty to the area. Incise the putty with a toothpick or tongue depressor, and then apply makeup to simulate bruised and torn flesh. Use black blood in the base of the wound, and then add bone fragments (small) and clotted blood.

Clothing

A good source of old clothing (other than your closet) is the Salvation Army or Goodwill store. It usually has some clothing in poor condition, which can be purchased for very little cost. Get the largest sizes available. If you plan to teach courses regularly, it is best to cut the clothing at the seams and sew in VELCRO strips so the clothing can be "ripped open" for exam of the patient and then stuck back together for the next group.