***Standard First Aid, CPR, and AED, Eighth Edition***

Instructor Manual

# Introduction

This instructor manual can help almost anyone become a better teacher! Many instructors get bogged down in the details of running a course. This manual describes ways of making instruction go more smoothly, for both the instructor and the participants.

## **Objectives**

You will not find a long list of objectives in this instructor’s manual. To provide quality first aid instruction for most injuries and sudden illnesses, only two objectives are needed:

1. Recognize or identify a specific condition (eg, heart attack, chemical burn).
2. Describe or apply proper care procedures.

To illustrate these objectives, the student manual (textbook) contains *What to Look For/What to Do* tables. The *What to Look For* column in these tables lists the signs and symptoms of specific conditions. The *What to Do* column describes the first aid procedures to be used for specific conditions. Simplified, the two objectives can be remembered as *find it; fix it*.

## **Customization**

This instructor manual offers a host of instructional strategies and course components to meet the preferences of the instructor and the needs of the participants. Instructors can utilize any of these strategies and customize the course to accomplish the following:

* Meet the needs of an organization, a business, or local or state regulations.
* Match the participants’ needs and capabilities.
* Fit the instructor’s preferred style of instruction. How a person teaches reflects their experiences.
* Provide a variety of instructional strategies. A variety of strategies is more effective than adhering to only one or two methods.

# Instructional Strategies

It is important to remember that all learning is brain-based. The brain does not just receive information—it processes it. Learning occurs when participants make sense of what they encounter or experience while interacting with others. During this process, neural connections are made in the brain, allowing participants to interpret the information they are being provided.

Passive methods of learning, such as listening or watching a video, do not require neural connections or interpretations to be made. Pouring facts into a participant’s head actually interferes with their learning. A glitzy presentation may make an immediate impression on the brain, but unless the participant has a photographic memory, they simply cannot retain all of the information being presented. Learning is not a spectator sport. To learn, participants must be engaged in higher-level tasks of thinking.

Real learning is not memorization. Most of what we memorize is lost in a matter of hours. To retain what has been taught, participants must mull it over, deliberate, and ponder on it. Without the opportunity to discuss and ask questions, the ability to learn is greatly reduced.

Having class members interact and collaborate is known as active learning. Active learning is effective, efficient, and engaging. People learn more and retain information longer if they acquire it in an active rather than a passive manner. Merely hearing or seeing something is not enough to learn it. The most common instructional error is mistaking the presentation of information for actual instruction.

## **Course Introduction**

Use the first 5 to 7 minutes of the course to briefly introduce yourself and to welcome the participants to the course. Consider using one of the “Getting Acquainted” activities outlined in the CH00 Lecture Outline document to warm the class up and help participants meet each other. If the participants already know each other, you may choose not to use any of these activities; however, getting to know each individual participant will prove useful to you and the other class members.

## **Lecture**

When instructors say they have covered content, they often mean they have presented the content in a lecture format. However, content covered is not always content learned. Learner involvement may be very minimal during lecture presentations. Still, that does not mean lecturing should never be used. In this course, lectures are accompanied by PowerPoint presentations. PowerPoint presentations are a fast, easy, and inexpensive supplement to lecturing, adding a visual component to the presentation.

When using the lecture instructional strategy, consider the following guidelines:

* Avoid overusing or reading word for word from the PowerPoint slides.
* Write key points from the presentations on a whiteboard, chalkboard, or easel paper pad.
* Make it a point to ask thought-provoking questions, and allow time for questions and discussion on a topic. Otherwise, class members will have little opportunity for involvement during the PowerPoint presentations.
* Keep lectures as brief as possible. Do not succumb to the “pull of the podium”; that is, do not expound and elucidate too much.
* Avoid sharing too many stories of your own personal experiences; such stories can come across as bragging.
* Do not stand in one place. Walk around the room during the lecture, but avoid pacing back and forth.

## **Troubleshoot a Scenario**

Scenario-based learning is motivating to many people and makes training seem relevant. This course contains multiple components to allow for scenario-based learning. To provide scenario-based learning, an instructor may choose to show the PowerPoint presentation slide(s) for a particular injury or illness and then do one of the following:

* Show and read aloud one of the two scenarios found in the Lecture Outline.
* Ask the participants, “Have any of you experienced or witnessed a situation in which someone \_\_\_\_\_\_\_\_ (eg, was severely burned, had broken a bone, had been stung by a bee)? Please tell the class what happened.”
* If teaching at a worksite or other location, acquire past on-site injury and sudden illness incidents to serve as scenarios, if possible, and share these incidents with the class.

Flowcharts (included as separate PDF files) can also be used for scenario-based learning. After presenting a scenario, consider showing the associated flowchart. Use the decision point questions in the flowchart to walk the participants through the scenario. When a decision point is reached, ask the participants which path is best to take for the particular situation. As you lead the participants through the flowchart, point out the key points and procedures. You may also choose to point out the key points and procedures for the flowchart’s other paths.

## **Active Learning**

The use of active learning has been well researched. The results show that participants who have opportunities to work collaboratively learn faster and more efficiently, have greater information retention, and feel more positive about the learning experience. With active learning, people are not just put into a group and assigned a task. Instead, instructors guide participants through simple but effective instructional strategies as they work cooperatively with their classmates. Very specific steps should be followed to ensure success, and it is essential that both instructors and participants are aware of them.

Some may think that an instructor who asks questions during a course is following the active learning model; however, when an instructor simply asks questions, a few problems can arise. First, when a question is posed to the class as a whole, usually a limited number of participants volunteer to answer. Research on participation has shown that in small classes, a few people do about 75% of the talking (excluding that which is done by the instructor). Second, as soon as the first person is called upon, many of the class members stop processing the answer. Using the active learning method overcomes these two problems. It actively involves *every* class member and has a far greater impact on learning than other strategies do.

Additional benefits of active learning include the following:

* It gets participants to think. To learn something, people need to interact with it.
* Active learning strategies offer a quick way to do that.
* It gets participants active. It takes them out of the sitting and watching or listening mode and puts them into an interactive talking mode.
* It provides novelty. Talking with a peer is a unique experience and makes the learning more memorable.
* It allows for assessment. The instructor can listen as participants talk and can gauge who understands the topic and who doesn’t.
* It requires almost no preparation. Combining active learning strategies allows an instructor to teach anywhere and anytime.
* It increases participation. Every person talks, and most people find it safer or easier to enter into a discussion. Too often, participation involves only a few students (usually the same few). Active learning allows even the quiet, shy, or intimidated person to participate.
* It provides structure to discussions and keeps participants focused on the task at hand.
* Participants learn new ways of thinking from each other. This may include new ways of thinking about a first aid procedure.
* More of what is learned is retained because participants have an opportunity to discuss and reflect on the topic.

Learner-centered active learning activities include Think-Pair-Share and Round Robin (discussed below). When using these active learning strategies, make sure to give clear instructions—what participants are to do, how much time they have to complete an activity, and with whom they will work. Clear instructions help ensure buy-in and better participation.

### *Think-Pair-Share (TPS)*

The following steps can be used to complete the Think-Pair-Share activity:

1. *Think*. Participants individually respond to a set of questions or scenarios (eg, the Scenarios and Agree/Disagree statements included in the Worksheets and Lecture Outlines, which are more thoroughly explained in the Course Components section of this Instructor Manual). Be sure to tell participants how much time they have to complete this segment of the activity (1 minute or less).
2. *Pair*. Pair each participant with a partner. Instructors may assign pairs or let participants pick their own partner. Be sensitive to those who may have reading, attention, or language difficulties. Do not keep a participant with the same partner throughout the course. Rotating partners allows participants to interact with different people and prevents incompatible participants from being stuck with each other. Pairing participants makes it impossible for them to avoid participating and thus enhances learning.
3. *Share*. Participants compare and discuss their answers from the Think segment of the activity with their partner, making note of any differences between their answers (1 minute or less). Direct partners to tell each other why they chose the answer they did (especially for those with which they disagree). Discussing answers with a partner maximizes participation, focuses attention, and engages students in comprehending the information. During this time, the instructor can walk around and listen to the conversations to get an idea of the participants’ understanding while they are in pairs. Occasionally, if time allows, consider expanding the Share segment of this activity by either (1) having each pair turn to another pair to compare and discuss their answers or (2) having one pair share their answers with the entire class. When first using this second technique, ask for volunteers; for later responses and answers, call on other pairs.
4. *Debriefing*. When most or all pairs have finished sharing their answers (after about 1 minute), reassemble the entire class and give the correct answers. Ask if any of the topics need further clarification. The clarification process can lead to a stimulating class discussion. The instructor can also focus upon other key points and procedures.

It can be challenging to get participants to come back to the larger group after working together in pairs. It is helpful to indicate at the beginning of the activity how long participants have to complete each segment of the activity (ie, how long to Think and how long to Share). Negotiate with the class a signal for participants to stop talking, such as sounding a buzzer, using an alarm on a smartphone, or flashing the room’s lights. Doing so will keep participants on task and help transition them into the larger group for debriefing.

Instructors should also avoid racing through material to finish it all by the end of a certain time. Rushing an activity is almost always counterproductive. Instead, vary the order of the Think-Pair-Share activity. For example, participants may be instructed to complete the Think segment but skip the Pair and Share segments; at the end of the Think segment, the instructor can ask participants to vote for answers to the questions by raising their hands. The instructor can then provide the correct answers and, if needed, clarification.

### *Round Robin*

The following steps can be used to complete the Round Robin activity:

1. Participants individually respond to a set of questions or scenarios (eg, the previously discussed Scenarios and Agree/Disagree statements).
2. Participants then work with a partner to compare and discuss their answers.
3. Reassemble the class and have one pair of participants answer a question before confirming the correct answer and providing explanation if necessary. Then, have the next pair of participants answer the next question, and continue around the remaining pairs until all of the questions or scenarios have been completed.

## **Games**

Educational games can be an effective and engaging instructional strategy. They provide challenge, competition, and a break from routine. Having an inexpensive prize to give to the winners can add to the participants’ incentive to win and to become actively involved in the game.

### *Agree/Disagree Tic-Tac-Toe Game*

To play the Tic-Tac-Toe game, the instructor should have a set of nine or more questions available (the Agree/Disagree statements found in the Worksheets and Lecture Outlines can be used for some of the questions).

1. Draw a large diagram of the **#** symbol (looks like a pound sign) to create a 3- by 3-square grid on a whiteboard, chalkboard, or easel paper pad.
2. Randomly pick a number from 1 through 9 and insert it in one of the squares on the grid.
3. Divide the class into two teams, and assign one team the symbol X and the other the symbol O.
4. After determining which team goes first (ie, flipping a coin or guessing a number written on a piece of paper), start by having one member of a team (or the entire team) select a number from the Tic-Tac-Toe diagram. Then, ask that team member (or the entire team) a question.
5. If answered correctly, insert the team’s symbol (X or O) over the number in the diagram and give the team 2 points.
6. If the team’s answer is incorrect, the other team gets a chance to answer. If their answer is correct, they receive 1 point (but no mark in the diagram).
7. If neither team answers correctly, discuss the correct answer with the class.
8. Continue playing, with the team that did not have the original question playing next. Repeat steps 1–7 until one team succeeds in placing three of their symbols in a horizontal, diagonal, or vertical row, or until all squares have been used. Teams can attempt to block each other’s progression. If the game ends quickly with squares unused, discuss the remaining questions with the class.

### *20 Questions Game*

1. Start by assigning a “sick person.” This person can be a class member or the instructor. The chosen person writes a sudden illness on a piece of paper and secures it in a pocket or under a book.
2. Participants attempt to determine what illness the “sick person” has by asking questions that can be answered with a “yes” or “no” (eg, “Are you taking insulin?” “Do you have chest pain?”). The “sick person” can refer to the student manual for signs and symptoms (found in the *What to Look For/What to Do* tables) to help answer the participants’ questions.
3. If participants do not guess the illness within 20 questions, they lose the game. Participants can guess the illness at any time, but the guess counts as a question.
4. If the illness is identified, the “sick person” shows the paper with the illness written on it to confirm the answer is correct.
5. The game can also be played competitively, pitting one team against another. A prize can be given to the participant or the team who gives the correct answer.

## **Skill Instruction**

Learning a skill (eg, bandaging, CPR) is a type of active learning. Some first aid trainers believe that practicing skills sufficiently places their program in the active learning category; however, in the ECSI course, participants are actively learning and interacting throughout the course, not just when a skill is being practiced.

Skill instruction can be either instructor led or shown through a video segment. Note that it is important to maintain a minimal ratio of students to instructors when students are performing skills. The maximum ratio should be six students per instructor, and three students per manikin when practicing CPR.

### *Video Segment*

Videos can support a course and minimize the need for lectures. Still, it is important to remember that good teaching is more than just pushing the Play button. When a video is shown in a classroom with the lights dimmed or turned off, some participants have a tendency to doze off. Prevent participant boredom by focusing upon open-dialogue discussion, skill development (eg, CPR, bandaging), and requiring participants to physically move and practice the skills.

Skill videos should be used as follows:

1. *Watch the video segment* of one of the skill demonstrations.
2. *Practice.* Place the participants in pairs or in teams of three to four participants. Participants should take turns performing the different roles described in the following list so that each participant performs the skill.
	* *If in pairs:* One participant starts as the first aid provider performing the skill, and the second participant serves simultaneously as the person receiving care and the coach. As the coach, the participant refers to the Skill Sheet associated with the video segment. After the skill is performed, the participants switch roles.
	* *If in small teams of three to four participants:* The roles of coach, person receiving care, and first aid provider are assigned and rotated among the team members.

### *Instructor Led*

If the instructor prefers, they can demonstrate a skill instead of using the video segment. (When leading the skill instruction, the instructor should refer participants to the appropriate Skill Sheets; this course component is more thoroughly explained later in the Course Components section of this Instructor Manual.)

### *Whole-Part-Whole-Whole Method*

When providing skill instruction (whether instructor led or video driven), use the Whole-Part-

Whole-Whole method. Take, for example, the skill of performing CPR:

1. *Whole*. Before demonstrating the skill, tell participants what to notice in the demonstration. This makes the participants aware of the most important features of the skill. Demonstrate (either by the instructor or the video segment) the “whole” action of CPR (ie, RAB-CAB).
2. *Part*. Participants practice each component of RAB-CAB (ie, the “parts” of CPR). This step can be optional, because most first aid skills do not require “parts” to be practiced.
3. *Whole*. This step can also be optional. The whole CPR procedure, or skill, is demonstrated again, either by the instructor or video segment.
4. *Whole*. Participants combine the parts of the skill and practice the sequence as a whole. The skill can be practiced by either of the two following methods:
	* *Drill practice*. The instructor leads the skill practice and the participants practice in unison. Depending upon the amount of equipment available (eg, manikins, bandages) participants may have to take turns practicing the drill.
	* *Paired or triad practice*. If in pairs, one participant practices the skill while the other gives cues and feedback. If in threes (triad), one participant practices the skill on another participant, while the third participant provides cues and feedback. All participants then rotate through the three positions.

## **Instruction Sequence Options**

**Table 1** shows how instructors can use the different instructional strategies discussed in this manual.

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| **Table 1: Instruction Sequence Options** |
| **Active Learning** | **Lecture** | **Troubleshoot a Scenario** |
| * *Think:*Individually, participants answer or respond to the Agree/Disagree statements or Scenarios found in the Worksheets or PowerPoint presentations.
* *Pair:*Participants pair up with a partner.
* *Share:*Participants compare and discuss their answers, focusing upon those with which they disagree.
* *Debrief:* Instructor gives correct answers and answers participant questions.
 | * Show the PowerPoint presentations and lecture using the Lecture Outlines.
* Show and read the scenarios found in the Worksheets and Lecture Outlines.
 | * Show and read the Scenarios found in the Worksheets and Lecture Outlines.
* Show the Flowchart PDFs. Lead participants through the flowchart, asking which path to take at each decision point.
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# Components of the Course

## **Instructor Manual**

The Instructor Manual (this document) contains everything you need to know to utilize the materials supplied in the instructor toolkit and to conduct your course in a unique and engaging way.

## **Student Course Manual**

*Standard First Aid, CPR, and AED, Eighth Edition,* provides information on how to handle common injuries and illnesses. When lay responders are faced with an injury or sudden illness, this book is a comprehensive guide on what symptoms to look for and what treatment steps to take.

The *Eighth Edition* has been updated to meet and exceed the scientific recommendations developed by the International Liaison Committee on Resuscitation (ILCOR) and is consistent with the Emergency Cardiovascular Care (ECC) Guidelines as established by the American Heart Association (AHA) and other resuscitation councils around the world.

## **ECSI Course Administration**

The ECSI Course Administration document covers important information on ECSI Educational Centers, the instructor application process, instructor and instructor-trainer responsibilities, instructor renewal processes, how to conduct a course, how to conclude a course, and ECSI contact information. Instructors should this document as a reference manual for all things related to ECSI instruction.

## **Course Outlines**

Course outlines, divided by time and topic, allow you to tailor the course to your audience. There are several course outlines and time allotments to choose from:

* Core Course: Adult and Child First Aid, CPR, and AED (4 hours)
* Core Course + Infant CPR (5 hours)
* Intermediate Course (6 hours)
* Comprehensive (Complete) Course: Adult, Child, and Infant First Aid, CPR, and AED (8 hours)
* First Aid Only Course (5 hours)
* CPR and AED Only Course (3.5 hours)

The Core Course includes the bare minimum, most critical topics needed for certification. All of the other courses build off of this course. Instructors should choose whichever course is most applicable to their student needs and time constraints. For example, daycare workers would probably need to participate in at least the Core + Infant CPR Course while construction workers might only need the Core Course. Similarly, ropes course employees may find the wilderness first aid content helpful in addition to the core content, and would then need the Intermediate or Comprehensive courses.

Though these course outlines are helpful in planning a course, the times listed are approximate and may differ depending on instructor resources and student needs.

## **Lecture Outlines and PowerPoint Presentations**

Lecture Outlines and PowerPoint presentations provide an easy reference for instructors to cover critical material during class. The Lecture Outlines summarize key points as well as associated support materials provided within this Instructor ToolKit. The PowerPoint presentations summarize the Lecture Outlines with quick, easy-to-follow bullet points. There is a batch of Lecture Outlines and PowerPoint presentations associated with each course outline. These materials are provided as editable files so that instructors can tailor their courses as they see fit for their audiences and personal teaching styles.

## **Worksheets**

Worksheets contain the Scenarios and Agree/Disagree statements found in the Lecture Outlines that instructors may want to use for topics that students seem to struggle with the most. These Worksheets are optional. Instructors may choose to distribute these Worksheets as assignments to be completed individually or in small groups, such as during the Think segment of a Think-Pair-Share activity, or display them and verbally discuss as a class. Instructors may also choose to assign or discuss specific Worksheet items as opposed to an entire Worksheet.

## **Flowcharts**

Flowcharts are included as separate PDF files that can be displayed during class or printed and shared with participants. The flowcharts show the essential steps of first aid in a logical, organized, and clear fashion. The charts’ top-down flow is easy to follow and helps reduce the time needed to learn the details of a particular first aid procedure. As previously mentioned, these flowcharts can be used to reinforce the decision-making process and appropriate procedures for providing first aid, CPR, and AED.

## **Videos**

There are two types of videos in this course: *skill* videos and *lecture* videos. Skill videos devoted to showing proper CPR, AED, and first aid skills (eg, bleeding control, airway obstruction care) support the course topics and minimize the need for lectures. All of the critical skills in this course have an associated skill video segment showing how to perform the skill. Some of the skills also have an associated Skill Sheet, Skill Checkoff Sheet, and/or Flowchart (as denoted in the Lecture Outlines). A list of equipment and supplies needed for skills practice is found in each Lecture Outline. A master list of equipment and supplies is found in this Instructor Manual, below.

Lecture videos are optional videos. Lecture videos aid in student understanding of critical and complicated topics. It is recommended that lecture videos be used when instructors feel that students need additional information in order to fully understand the content. All of the critical topics in this course have an associated lecture video segment that breaks down the topics into easy-to-remember points. Each lecture is expanded upon in the Lecture Outlines and PowerPoint presentations.

Though ECSI does not offer physical DVDs, instructors can still burn the videos to a disc if they so choose. To burn the videos to a DVD, download the videos from your My Account page and save them to a common location, such as your desktop. Insert a blank DVD into the disc drive. Select all the videos you wish to burn to the DVD and right click. Select “burn to DVD.” Follow the remaining prompts from your computer.

## **Skill Sheets**

Skill Sheets offer step-by-step explanations and visual summaries of important skills. This component can be used in conjunction with the skill videos or used separately as a reference for participants if the instructor chooses to lead the skill demonstration. Skill sheets are included in the student manual and are also provided in PDF format in this instructor toolkit for display and discussion during class.

## **Skill Checkoff Sheets**

The Skill Checkoff Sheets are used to evaluate student comprehension of key skills. For each step of a particular skill, the instructor should mark either the “Pass” column or the “Needs practice” column. Use the “Evaluator comments” section to elaborate on their decisions. Participants do not have to perform the skills perfectly, but they do need to be able to complete them reasonably well. These sheets help determine if a participant meets a passable proficiency level.

## **Final Exams, Answer Sheet, and Answer Key**

Written tests are not required for lay responders to qualify for a course completion certificate. However, if an employer or a state or local agency requires a final exam, the instructor can select an appropriate one from the exams provided in this instructor toolkit. Students may answer the questions using the answer sheet provided, or may circle the correct answers directly on the exams. Instructors should use the answer sheet to check student answers.

## **ECSI Course Evaluation Form**

The Course Evaluation Form may be given to participants at the conclusion of the course.

# Equipment and Supplies

Below is a list of equipment and supplies recommended for conducting the course. Though this list is not exhaustive, it will give instructors a good idea of what is needed. Instructors are encouraged to add to and subtract from this list to meet their needs.

* Equipment for showing the video segments
* Equipment for showing the PowerPoint presentations
* Latex-free disposable medical exam gloves (one pair for each participant; can be kept and reused)
* One inhaler and one inhaler spacer for every two participants
	+ Inhaler trainer kits are available through [www.capmedicinhaler.com](http://www.capmedicinhaler.com)
* One epinephrine auto-injector for every two participants
	+ Free EpiPen trainers are available through [www.epipen.com](http://www.epipen.com)
* Several 4- by 4-inch gauze dressings
* Several 2- or 3-inch roller gauze bandages
* Two triangular bandages for every two participants
	+ Made from diagonally cutting a square piece of muslin cloth (with about 36-inch sides) (cloth can be washed and reused for future skill demonstrations)
	+ Commercial triangular bandages are also available, but are not as durable as those made of muslin cloth.
* Several ice or cold packs, or plastic sandwich bags filled with wad of cloth to simulate ice
* Several small, thin towels, such as wash cloths or paper towels
* Several sticks or pencils
* Adhesive tape
* Manikin decontamination supplies (eg, 4- by 4-inch gauze pads, buckets, bleach solution)
* Adult manikins (one for every three participants)
* Child manikins (one for every three participants; or use adult manikins if not available)
* Infant manikins (one for every three participants)
* Extra manikin supplies (eg, lungs, faces, cleaning materials)
* Mouth-to-barrier devices (one for each participant)
* AED training device, pads, extra batteries
* Clean blankets or mats
* Extra pens and pencils
* Blank paper for participants to respond to the Agree/Disagree statements
* Copies of the final written exams (optional and if required by an employer or regulatory agency)

# OSHA Workplace First Aid Requirements

Employers are required by the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1910.151 to have a person or people adequately trained to render first aid for worksites that are not in near proximity to an infirmary, clinic, or hospital.

It is advised that the first aid program for a particular workplace be designed to reflect the known and anticipated risks of the specific work environment. Instructors should consider consulting with local emergency medical experts and providers of first aid training when developing a first aid program.

The program must comply with all applicable OSHA standards and regulations. OSHA requires certain employers to have CPR-trained rescuers on site. Sudden cardiac arrest is a potential risk at all worksites, regardless of the type of work. Serious consideration should be given to establishing a workplace AED program.

First aid supplies must be available in adequate quantities and be readily accessible. First aid training courses should include instruction in general and workplace hazard-specific knowledge and skills. CPR training should incorporate AED training if an AED is available at the worksite. First aid training should be repeated periodically to maintain and update knowledge and skills.

Management commitment and worker involvement are vital in developing, implementing, and assessing a workplace first aid program.