



# 40mm Impact Munitions Instructor Course Course Design Document

Version 7.0

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 **TRAINING**  
**ACADEMY**

## Course Description

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### Overview

Over the centuries, civilizations have sought ways to protect society from violence while minimizing injuries to the public and its officials. The Safariland Training Group is proud to offer this 8-hour course dedicated to training students' various ways to maintain order while also earning the public's trust. This "Train the Trainer" course is designed to educate instructors of less lethal tools in their origins, design, safe application and how to present and document future training.

### Scope

Students successfully completing this course will leave with a deep understanding of the use, effects and the skill sets needed to use less lethal tools. In support, those students will also receive material they may use upon returning to their workplaces to present this information to their peers.

### Target Audience

The information presented during this course is applicable to dedicated trainers of security, law enforcement and military forces tasked with less lethal requirements. In its current format, students will be encouraged to present this information to others upon returning to their work site. To that end, the organization as a whole will receive the most out of this program when those that attend are enabled to present it to others. On average, the presentation space can drive the number of students at any one presentation. Within an average training location, the student number can be as high as 30 primary students, with range space allowing two rotations of 15 students at one time.

### Prerequisites

As this is a train the trainer course, we recommend students have instructing experience. Prior experience with less lethal products is very valuable.

### Course Length

This is an 8-hour course to be delivered in one day. Module's 1-4 will be delivered as a power point driven lecture followed by module's 4-9 as skill development range time where the students will see, practice then demonstrate their competencies.

## Required Materials/Facilities

- ï Instructor Guide
- ï Modules 1-3 presentation slides
- ï Audiovisual kit
- ï Projection screen
- ï Attendance sheets
- ï Post-test answer key
- ï Live Fire Range
  - ï 25 yards out to 100 best, 50 acceptable
  - ï 55 gal barrels (6)
  - ï Paper Silhouette Targets (2 per student)
  - ï Medical trauma kit
  - ï Communication with local medical / fire resources while on range
- ï One per participant of the following items:
  - Participant Guide
  - Pen
  - Registration form
  - Post-test
  - Course evaluation form

## Host Requirements

Organizations wishing to host this program should identify a manager or his designate who is able to adjust work schedules, acquire lecture hall able to seat 30 students and should include a projector screen. The facility should include access to restrooms, Module 5 requires a range area that will allow deployment of impact munitions, out to ranges of 75 meters is required.

## Testing/Certification

Students will be involved in discussions, asked to teach back key aspects and present a full block from the modules throughout both days. They will also be observed to ensure the skill sets being presented are being assimilated properly. Lastly, the students will complete a written test. Once graded the students will be remediated to 100% to ensure a complete understanding of the material before they leave the program.

## Evaluation Strategy

Participants will complete a written Course Evaluation at the conclusion of the course. The evaluation will focus on:

- ï The relevance of the course material to the participant's primary job functions and real world situations

- ï The role and effectiveness of the instructors and their ability to successfully transfer knowledge, skills, and abilities to the participants
- ï The structure, format, and value of the course in supporting the course goal and individual module objectives

## Reference List

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2. Department of Defense Non-Lethal Weapons and Equipment Review: A Research Guide for Civil Law Enforcement and Corrections NCJ 200516 July 2002, NIJ-Sponsored
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6. [Operational Assessment of the Benelli M4 Shotgun as a Less Lethal Launcher](#), by Charlie Mesloh, Florida Gulf Coast University (2008).
7. [Impact Munitions: A Discussion of Key Information](#), by David Klinger, 30(3) Policing 385-397 (2007). DOI: 10.1108/13639510710778804. [Abstract](#).

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9. [Impact Projectiles: Shot placement & the role it plays in death and injury prevention](#), by Major Steve Ijames (Ret.), PoliceOne (2006).
10. [Medical Aspects of Less Lethal Weapons](#), by W. Bozeman & J. Winslow, 5 (1) The Internet Journal of Rescue and Disaster Medicine (2005).
11. [A Flexible and Effective Beanbag Platform](#), Doreen Hudson, L.A.P.D., 31 slide PowerPoint presentation (2006).
12. [Impact Munitions Use: Types, Targets, Effects](#), by Ken Hubbs & David Klinger, National Institute of Justice (2004). "In the 373 incidents reported, 8 individuals died as a result of being hit by impact munitions. Two additional deaths resulted not from impact munitions themselves, but from lethal rounds mistakenly fired by officers who intended to use impact munitions."
13. [A Framework for the Assessment of Non-Lethal Weapons](#), by Brian Rappert, 20 (1) Medicine, Conflict and Survival (Taylor & Francis) 35-54 (2004). DOI: 10.1080/13623690412331302284.
14. [Kinetic Impact Munitions and Taser Guns: Two Less Lethal Weapons Options for the Wayne County \[Mich.\] Airport Police Dept.](#), by P. Driscoll (2003).
15. Kinetic Impact Weapons: The Potential for Injury, by J. Heck, NTOA Tactical Edge,

## **Course Structure/Content Outline**

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### **Module 1: Course Introduction and Administration**

#### **Terminal Learning Objective**

Participants will recognize the course goal, enabling objectives, course schedule, and course performance requirements.

#### **Enabling Learning Objectives**

At the conclusion of this module, participants will be able to

- 1-1 Present the goal and summarize the objectives for the course,
- 1-2 describe the course schedule and complete administrative requirements,
- 1-3 describe how participant performance will be evaluated,

#### **Lesson Topics**

Welcome, Introductions Activity, Registration Form, Course Overview, Disclaimers

#### **Instructional Strategy**

Lecture

#### **Assessment Strategy**

- ï Instructor observation of participants' involvement in the classroom discussion
- ï Instructor-led discussion to ensure participants understand how instructors will evaluate performance

#### **Practical Exercise Statement**

Not applicable

## Module 2: Cause and Effect

### Terminal Learning Objective

Upon completion of this module, participants will identify less lethal impact munitions, their intended effect, and application.

### Enabling Learning Objectives

At the conclusion of this module, participants will be able to

- 2-1 Explain the various methods used in the past to control violent subjects
- 2-2 Explain the advantage distance gives officers in violent encounters
- 2-3 Explain the OODA Loop concept for mental distraction
- 2-4 Explain Blunt Trauma in terms of application and physical results
- 2-5 Explain the bodies healing process from blunt trauma
- 2-6 Explain the safety testing process used by Def Tech to certify the safe use boundaries of its products
- 2-7 Explain the three “Zones” for impact munitions

### Lesson Topics

Historical attempts at controlling crowds / violent people, distance as a positive aspect of control, Blunt Trauma, Penetrating Trauma, safety testing, targeting a human

### Instructional Strategy

Lecture

### Assessment Strategy

- ï Observing participant behavior in the classroom
- ï Questioning participants to ensure that they understand each objective
- ï Soliciting input from participants to explain actions during each objective

### Practical Exercise Statement

Not applicable



## Module 3: Less Lethal Options

### Terminal Learning Objective

Upon completion of this module, participants will identify the characteristics of LLIMS enabling them to select the best options for the threat presented to them.

### Enabling Learning Objectives

At the conclusion of this module, participants will be able to

- 3-1 Explain the difference between low energy and high energy munitions
- 3-2 Explain the characteristics of 37mm munitions
- 3-3 Explain two ways to identify a 37mm munitions
- 3-4 Explain the application of direct fire munitions
- 3-5 Explain how an eXact and Direct 40mm munitions obtain their accuracy
- 3-6 Explain the concept of minimum distance related to the safe use of munitions
- 3-7 Explain indirect fire vs. direct fire applications of LLIMS

### Lesson Topics

Low energy, high energy, eXact Impact, Direct Impact, pay load, extended range, accuracy, single subject target, multiple threat target

### Instructional Strategy

Lecture

### Assessment Strategy

- ï Observing participant behavior in the classroom
- ï Questioning participants to ensure that they understand each objective
- ï Soliciting input from participants to explain actions during each objective

### Practical Exercise Statement

Not applicable

## Module 4: Deployment, Legal, and Training Parameters

### Terminal Learning Objective

Upon completion of this module, participants will identify how to establish a sustainable, effective and definable training program for LLIMS.

### Enabling Learning Objectives

At the conclusion of this module, participants will be able to

- 4-1 Identify at least four deployment considerations for LLIMS
- 4-2 Explain how to safely load, and un-load a 40mm launcher
- 4-3 Explain the parts of the 40mm LMT launchers
- 4-4 Explain how proper training, policy review and communication from administration can help prevent poor applications of force
- 4-5 Explain two examples of case law that effect the use of LLIMS
- 4-6 Explain the concept of qualification with LLIMS
- 4-7 Explain target selection consideration for different LLIMS munitions

### Lesson Topics

Deployment Considerations, two man reload, LMT launchers, Sting Ball, policy considerations, Qualification goals, targets pro and cons, student learning matrix

### Instructional Strategy

Lecture

### Assessment Strategy

- ï Observing participant behavior in the classroom
- ï Questioning participants to ensure that they understand each objective
- ï Soliciting input from participants to explain actions during each objective

### Practical Exercise Statement

Not applicable

## **Module 5: (Range) Live Fire Single / Multiple Projectile Munitions**

### **Terminal Learning Objective**

Upon completion of this module, participants will be able to identify from marking and shape different LLIMS and their intended application.

### **Enabling Learning Objectives**

At the conclusion of this module, participants will be able to

- 5-1 identify the observable effects of a 40mm being fired
- 5-2 identify the difference between 40mm single and multiple projectiles munitions
- 5-3 identify the intended Point of Aim for the different munitions
- 5-4 Demonstrate the function and safe handling of the 40mm launcher
- 5-5 Demonstrate Loading and deployment of training munitions

### **Lesson Topics**

Safety considerations for students, preparing the training location, Target Zones, distances, loading process, deployment considerations, Training development, policy review, range considerations

### **Instructional Strategy**

Student participation / Demo

### **Assessment Strategy**

- ï Observing participant behavior in the classroom
- ï Questioning participants to ensure that they understand each objective
- ï Soliciting input from participants to explain actions during each objective

### **Practical Exercise Statement**

Not applicable

## **Module 6: Course Wrap-Up, Post-Test, and Course Evaluation**

### **Terminal Learning Objective**

At the end of this module, participants will complete a comprehensive written Post-Test and Course Evaluation.

### **Enabling Learning Objectives**

At the conclusion of this module, participants will be able to

- 8-1 discuss learning objectives and overall course content,
- 8-2 provide feedback by completing a Course Evaluation form, and
- 8-3 complete a comprehensive Post event Test successfully.

### **Lesson Topics**

Course Wrap-Up, Course Evaluation, Post-Test

### **Instructional Strategy**

Lecture, “Teach Back” written Test

### **Assessment Strategy**

- ï Instructor administration of a Post-Test to assess knowledge participants have gained from each module
- ï Completion of a Course Evaluation form

### **Practical Exercise Statement**

Not applicable

## Course Agenda

### Day 1

<input type="checkbox"/> Module 1	Course Introduction and Administration	10 minutes
<input type="checkbox"/> Module 2	Cause and Effect	35 minutes
<input type="checkbox"/> Module 3	Less Lethal Options	45 minutes
<input type="checkbox"/> Module 4	Deployment, Legal, and Training Parameters	45 minutes
<input type="checkbox"/> Lunch	Flexible due to location, distance to range	60 minutes
<input type="checkbox"/> Module 5	Range Qual / Demo	135 minutes
<input type="checkbox"/> Module 6	Test / Eval	30 minutes



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