Road Accident Investigation Course

Road accident investigation is vital in understanding how and why crashes are happening, and how you can prevent them. This course provides the skills to attend and manage a traffic crash scene, learn about the various marks left on the roadway, how they are caused, and what they mean.

Participants will understand how and why vehicles move as they do after impact and be able to place the vehicles back at their impact positions. Participants will gain the skills to complete sketch and scale plans, and learn how to photograph a scene correctly.

Course objectives

After completing this course, participants will be confident to

- Investigate traffic crashes and provide robust information on what happened, how it happened, and why.
- Attend and manage the traffic crash scene.
- Understand the meaning of marks left on the roadway and how they are caused.
- Photograph the crash scene and complete the sketch and scale plan precisely.
- Conduct the crash Root Cause Analyses (RCA).
- Suggest the appropriate traffic crash prevention techniques.
- Plan and execute safe recovery of the vehicle involved in an accident.
- Action the post–crash response plans.

Course Contents

1. Introduction to Crash Investigation and Reporting

This module provides you with the reasons we investigate traffic crashes. It examines transport systems, the uses of crash data, and the importance of collecting accurate information. It also introduces the need to plan and manage attendance at crash scenes to ensure the safety of those at the scene and to capture all necessary information.

On completing Module 1, participants will:

- Understand how traffic crash report information is used;
- Understand the importance of gathering accurate information;
- Understand the 'Safe System' approach to road safety;
- Know the difference between reporting and investigating;
- Appreciate and develop the skills needed to be a good investigator
- Undertake pre-planning when attending incidents.

2. Identifying and Collecting Road Crash Evidence

This module provides the knowledge to correctly identify the marks left on a road surface following a traffic crash. The reasons for the marks and how they are caused will be explained, allowing participants to form sound opinions on what has happened.

On completing Module 2, participants will have the knowledge to:

Identify different tyre marks and how they are caused.
Identify scars on the road surface and explain how they are caused.
Understand vehicle weight shift and how that affects tyre skid marks.
Know how to mark road evidence.

3. Vehicle Dynamics, Damage, and Equipment Inspection

This module will provide you with the knowledge to understand how and why vehicles move as they do during and after a collision. You will be able to describe why vehicles rotate or spin after impact, where the vehicles were on the roadway at the moment of full impact, and the approach angles between vehicles.

Participants will gain an understanding of the critical components of a vehicle and how to determine if the lights were on or off and if the tyres were deflated before the crash.

On completing Module 3, participants will:

- Understand how impact alignment directs post–impact movement.
- Know how to determine where the impact forces travelled through the vehicle,
- Know what different vehicle components do and what to consider a causative failure.
- Be able to determine if seatbelts were being worn at the time of impact.

4. Scene Diagram, Plans, and Photography

This module provides the knowledge to complete a sketch plan of a traffic crash scene, take measurements from which a scale plan can be drawn, and how to capture scene and vehicle evidence with photographs.

On completing this module, participants will:

- Understand the requirements of a sketch plan.
- Understand the requirements of a scale plan.
- Be able to complete both sketch and scale plans.
- Understand the importance of correctly photographing a scene and vehicle.
- Be able to complete a full photographic record of a crash scene and the evidence observed within it.

5. Mathematics – Velocity and Reaction Time, Speed Estimates from Skid Marks

The ability to estimate speed and determine if it was a cause or contributing factor in a traffic crash is a valuable skill for a crash investigator. This module will introduce equations used to calculate vehicle speed from tyre marks, as well as how to determine travel times, stopping distances, and distances traveled during perception and reaction time.

On completing this module, you will:

- Understand how to convert speeds in kilometres per Hour (km/h) to velocity in metres per second (m/s).

- Understand the distance/time/velocity relationship and equations.

- Be able to calculate vehicle speeds from measured skid marks.

- Understand the factors that influence the speed results from the skid equation.

Target audience

- Transport or Fleet managers.
- Traffic police officers.
- Safety personnel

Course duration **5 Days**

Course Fee **TZS 850,000** Per person

Course deliverd in **English, Swahili**