

Introduction to Crash Investigation & Reconstruction

17 - 21 September 2018

Course Aim & Outline

To provide training to persons involved in motor vehicle collisions at the investigation, damage assessment, or litigation levels in Technical Crash Investigation & Collision Reconstruction, ensuring proper cause analysis.

This course addresses the technical crash investigation and reconstruction technique competencies aligned with National and International practices. It will allow for the participants to effectively and efficiently examine, record and interpret the results of a collision and provide an opinion as to speed, direction of travel, vehicle and person movements and probable contributions of the human, vehicle and environment factors associated with the collision.

Course Outcomes

You will develop the ability to:

- Examine the physical evidence of a collision scene
- Identify different types of tyre marks and other markings associated with the collision and determine from which object they came and how they were caused
- Prepare an accurate photographic survey record of all physical evidence and road features relevant to a collision under investigation
- Prepare a clear and accurate scale plan of the collision scene, including damage profiles of the vehicles involved
- Conduct friction and other necessary experiments at a collision scene
- Determine directions of travel of vehicles and persons involved in a collision, using physical evidence and the laws of physics
- Calculate speeds of vehicles involved in a collision
- Have the training to reconstruct a motor vehicle collision and nominate probable contributions of the human, vehicle and environment factors associated with the collision.

Instructor Biography



Dr Shane Richardson is the Principal Forensic Engineer at Delta-V Experts. Shane has been investigating vehicle collisions (and industrial incidents) since 1996, initially for the Australian Department of Defence (Army) with the Engineering Design

Establishment, then as part of his PhD research and finally for Delta-V Experts. Shane holds a Bachelor of Mechanical Engineering, Master of Science in Military Vehicle Technology and a PhD relating to vehicle rollover. Shane leads a team of seven engineers at Delta-V Experts who investigate vehicle collisions (and industrial incidents) on a daily basis. Shane has published and presented at national and international conferences, and has provided expert evidence across Australia for the Coroner, as well as all court levels, including Supreme courts.



Date:	17-21 September 2018
Time:	9am - 5pm (5 Day Course)
Location:	9 Springbank St, Tullamarine, VIC

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It is assumed that the audience is familiar with basic maths and the use of a scientific calculator and to have some interest or experience investigating, assessing or litigating motor vehicle collisions.

All participants will be assessed on an informal and formal basis throughout the course. Knowledge will be assessed by written examinations involving calculations, as well as interpretation of evidence contained in plans and photographs.

DAY ONE

- Introduction to Collision Reconstruction
- Inspection of a Scene
- Vehicle Condition & Inspection; Thrust Diagrams
- Lights & Glass
- Debris, Tyre Marks & Gouges
- Friction & Friction Measuring Devices
- Resultant Drag Factor – Effective Factor

DAY TWO

- Measurements & Diagrams, Geodimeter Total
- Survey Station
- Photographs
- Speed from Skid, Yaw, Flips & Vaults
- Trucks, Articulated Vehicles, Tacographs & Trip Computers

DAY THREE

- Pedestrian Collision Reconstruction – Vehicle
- Speed Estimate Formulae
- Motor Cycle Reconstruction
- Dynamics, Time, Distance, Acceleration

DAY FOUR

- Energy, Damage, Vehicle Stiffness;
- Conservation of Momentum, Rear End, Head On, Intersection Collisions, Examination review

DAY FIVE

- Involves case studies, written examination
- This Module comprises learning assessments, certificate presentation and course close



Early Bird 5 July to 5 August 2018 (30% Saving)

	price after 5 August 2018
Member: \$1,365	\$1,950
Non-Member: \$1,715	\$2,450
Student: \$945	\$1,350

**Advanced Course coming 22-26
October 2018 – details released soon**