

# Commercial Vehicle Crash Investigation - Level II

## **SECOND IN THE COMMERCIAL VEHICLE CRASH INVESTIGATION SERIES**

We will begin by analyzing the ABS air brake system on commercial motor vehicle (CMV) truck-tractors and trailers by conducting tests to determine average air brake chamber pressure. You will participate in a "hands-on" field inspection as we conduct brake tests with a CMV.

We'll teach you how to construct free-body diagrams and formulate equilibrium equations to determine the range of weight distribution on the axles. We will also examine quasi-static and dynamic rollover propensities and conduct an analysis of suspension spring rates.

Finally, we will discuss the different types of transmissions used in today's commercial motor vehicles and teach you how to obtain the range of speeds for the vehicle based upon the gear position at the time of the crash.

## **Topics Include**

- Tractor-trailer ABS air brake system
- Hydraulic brake systems in commercial vehicles and how fluid pressures are boosted
- Quasi-static and dynamic rollover propensities and liquid loads
- Axle weight analysis and load reconstruction
- Trailer coupling devices - fifth wheels
- Off-tracking
- Speed from gear ratio
- Rotational mechanics
- Skid mark measurements and speed analysis
- Field inspection

## **Audience**

Law enforcement and private traffic crash investigators, claims adjusters, engineers, attorneys, safety officers, military investigative personnel, animators and graphic designers

## **Course Length**

40 hours

## **Prerequisite(s)**

You must have completed, at a minimum, IPTM's *Advanced Traffic Crash Investigation* and *Investigation of Commercial Vehicle Crashes – Level I* courses.

## **Other Courses in the Series**

- [Commercial Vehicle Crash Investigation - Level I \(https://www.campusce.net/iptm/course/course.aspx?C=231\)](https://www.campusce.net/iptm/course/course.aspx?C=231)
- [Heavy Vehicle Electronic Control Module Data Use in Crash Reconstruction \(https://www.campusce.net/iptm/course/course.aspx?C=117\)](https://www.campusce.net/iptm/course/course.aspx?C=117)

## **ACTAR Information**

SHARES IPTM's *Commercial Vehicle Crash Investigation - Level II* course is eligible for 40 ACTAR CEUs.

**Commercial Vehicle Crash Investigation - Level II****4/9/2018 - 4/13/2018****Jacksonville Florida**

Class times: 8:00 AM to 5:00 PM

**Fee: \$795.00****Hotel and Location Information:** [IPTM - University of North Florida \(http://iptm.unf.edu/travel/\)](http://iptm.unf.edu/travel/)

Adam W. Herbert University Center, 12000 Alumni Drive, Jacksonville, FL 32224

**Instructor(s):****Register Myself****Register Others****Commercial Vehicle Crash Investigation - Level II****9/10/2018 - 9/14/2018****Jacksonville Florida**

Class times: 8:00 AM to 5:00 PM

**Fee: \$795.00****Hotel and Location Information:** [IPTM - University of North Florida \(http://iptm.unf.edu/travel/\)](http://iptm.unf.edu/travel/)

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**Instructor(s):****Register Myself****Register Others****Quicklinks****[Cancellations and Refunds](https://iptm.unf.edu/Cancellations_and_Refunds/)**[\(https://iptm.unf.edu/Cancellations\\_and\\_Refunds/\)](https://iptm.unf.edu/Cancellations_and_Refunds/)**[Registration Login](https://www.campusce.net/iptm/account/signin.aspx)**[\(https://www.campusce.net/iptm/account/signin.aspx\)](https://www.campusce.net/iptm/account/signin.aspx)**[Driving Directions](https://iptm.unf.edu/Driving_Directions/)**[\(https://iptm.unf.edu/Driving\\_Directions/\)](https://iptm.unf.edu/Driving_Directions/)**[FAQs](https://iptm.unf.edu/FAQs/)** (<https://iptm.unf.edu/FAQs/>)**Follow IPTM**[/iptm1/](https://www.facebook.com/iptm1/)[/iptmnews](https://twitter.com/iptmnews)**[Privacy Statement](https://iptm.unf.edu/privacy)**[\(https://iptm.unf.edu/privacy\)](https://iptm.unf.edu/privacy)**[University of North Florida](http://www.unf.edu)**[\(http://www.unf.edu\)](http://www.unf.edu)

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*Training the Next Generation of Law Enforcement*

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