

Northwestern

CENTER FOR
PUBLIC SAFETY

2027 CRASH CATALOG

APPLICATIONS ARE OPEN!



<https://www.surveymonkey.com/r/NORTHWESTERN-TRCC-2027>



2027 COURSE DATES

CORE CRASH SERIES

Crash 1 - February 15-26 | Page 3

Crash 2 - March 15-25 | Page 3

Math & Physics - April 19-22 | Page 4

Vehicle Dynamics - April 26-30 | Page 4

Reconstruction 1 - May 17-28 | Page 5

Reconstruction 2 - June 21-July 2 | Page 5

CRASH INVESTIGATION AND RECONSTRUCTION ELECTIVES

Heavy Vehicle Forensic Inspection - March 1-5 | Page 6

Heavy Vehicle Reconstruction - March 8-12 | Page 6

Drone Part 107 License - Class 1 - March 29 | Page 7

Remote Pilot - Class 1 - March 30 | Page 7

Remote Pilot - Class 2 - March 31 | Page 7

Crash Aerial Photogrammetrist - April 1-2 | Page 7

CDR Analysis and Application - September 13-17 | Page 7

Supervisor of Crash Units - September 20-24 | Page 8

LOCATION

All courses will be held at

Louisiana State Police Academy
7901 Independence Blvd.
Baton Rouge, LA 70806

Unless otherwise noted, all classes take
place from 8:00 AM-5:00 PM

APPLICATION WINDOW

Apply now!

**Application period
closes October 11**

Crash Investigation 1

Description:

Introduces the fundamentals of traffic crash investigation, including evidence collection, vehicle inspection, scene measurement, and documentation. Students also learn how crash-scene information supports later reconstruction work.

February 15-26, 2027

Content:

- Evidence collection
- Driver and witness information
- Vehicle inspection
- Scene measurement and mapping
- Crash diagrams
- Introduction to EDRs



Crash Investigation 2

Description:

Builds on Crash Investigation 1 with more advanced techniques for collecting, interpreting, and documenting crash data. The course also includes CDR Systems Operator training.

Prerequisites: Crash Investigation 1

March 15-25, 2027

Content:

- Vehicle damage analysis
- Tire marks and roadway evidence
- Advanced scene measurement
- Technical report writing
- CDR data collection and preservation

Math & Physics Review

Description:

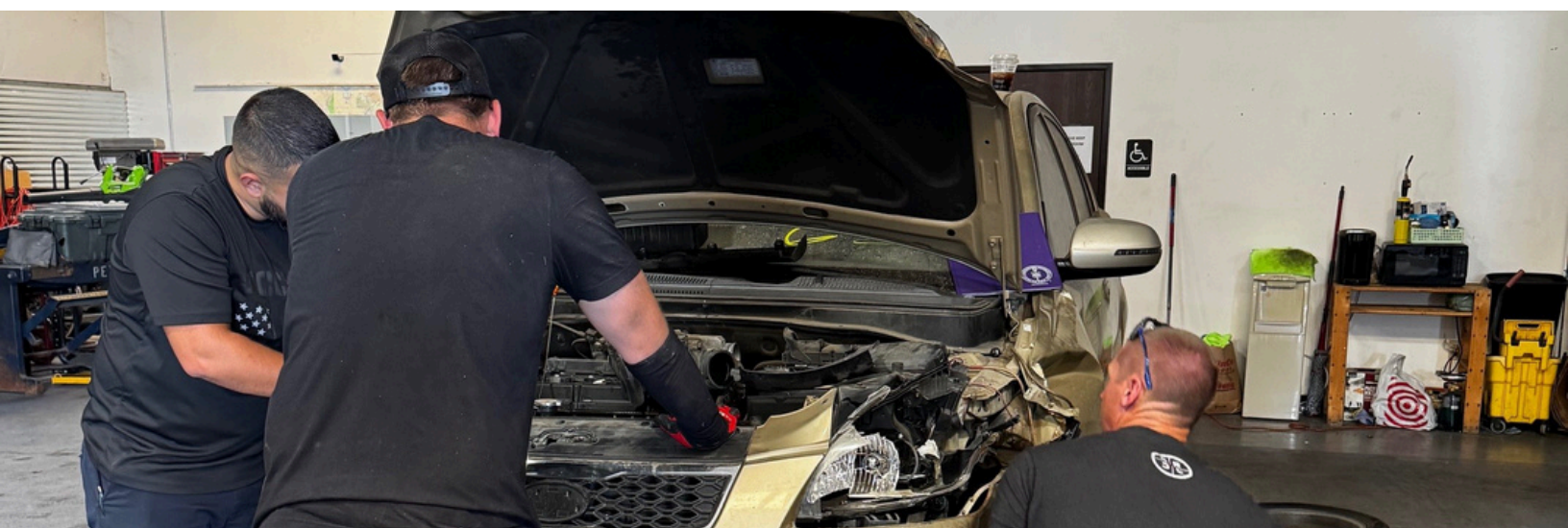
Refreshes the math and physics skills needed for advanced crash reconstruction courses, with practical applications involving velocity, acceleration, and distance.

Prerequisites: Crash Investigation 1 & 2

April 19-22, 2027

Content:

- Essential math review
- Applied physics concepts
- Crash reconstruction calculations
- Formula & equation review
- Reconstruction preparation



Vehicle Dynamics

Description:

Applies advanced math and physics to vehicle motion and crash reconstruction, preparing students for Traffic Crash Reconstruction 1 and 2.

Prerequisites: Crash Investigation 1 & 2, Math & Physics Review for Crash Reconstruction

April 26-30, 2027

Content:

- Newton's Laws
- Friction and drag factor
- Equations of motion
- Velocity and acceleration
- Momentum
- Time-distance analysis

Crash Reconstruction 1

May 17-28, 2027

Description:

Introduces advanced reconstruction methods using mechanics, momentum, and real-world crash data to decide how collisions occurred.

Prerequisites: Crash Investigation 1 & 2, Math & Physics Review (recommended), Vehicle Dynamics

Content:

- Engineering mechanics
- Momentum analysis
- Vehicle behavior
- Time-distance analysis
- Road-mark analysis
- Driver strategy and tactics

ACTAR: 80 CEUs



Crash Reconstruction 2

June 21-July 2, 2027

Description:

Builds on Reconstruction 1 with advanced energy analysis, EDR data, statistics, and specialized velocity calculations.

Prerequisites: Crash Investigation 1 & 2, Math & Physics Review for Crash Reconstruction, Vehicle Dynamics, Traffic Crash Reconstruction 1

Content:

- Work and energy
- Damage energy
- EDR data
- Occupant kinematics
- Special velocity calculations
- Monte Carlo analysis

ACTAR: 80 CEUs



Heavy Vehicle Forensic Inspection

Description:

Provides hands-on training for inspecting and documenting collision-damaged commercial vehicles and identifying mechanical factors that may have contributed to a crash.

March 1-5, 2027

Content:

- Heavy vehicle systems
- Brakes
- Suspension
- Wheels and steering
- Evidence preservation
- Hands-on vehicle inspection

Heavy Vehicle Reconstruction

Description:

Focuses on specialized techniques for reconstructing commercial motor vehicle crashes. Students examine heavy vehicle braking, collision dynamics, speed analysis, and EDR data through real-world scenarios and field testing.

Prerequisites: Traffic Crash
Reconstruction 1 & 2

March 8-12, 2027

Content:

- Heavy vehicle braking
- Collision dynamics
- Speed analysis
- Rollover events
- EDR fundamentals
- Case studies

ACTAR: 40 CEUs

Drone Part 107 License

March 29, 2027

Description:

Prepares public safety professionals for the FAA sUAS Knowledge Test and introduces the regulations and operating principles needed for safe drone use.

Content:

- Part 107 regulations
- National Airspace System
- Flight operations
- Aeronautical decision-making
- Safety requirements



Remote Pilot

Description:

Provides hands-on drone training for public safety professionals, with an emphasis on safely capturing crash-scene photos and video.

Prerequisites: Participants should hold a current 14 CFR Part 107 Certification.

Class 1: March 30, 2027

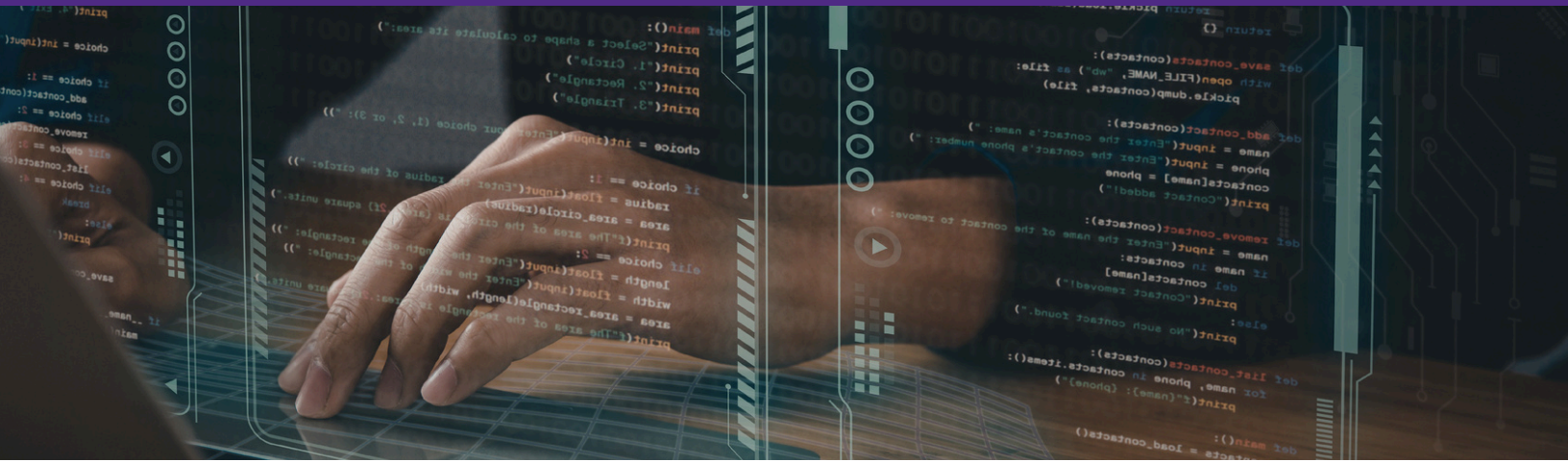
Class 2: March 31, 2027

Content:

- Drone setup
- Camera controls
- Preflight checks
- Flight planning
- Image capture
- Obstacle navigation

ACTAR: 8 CEUs

Crash Investigation and Reconstruction Electives



Crash Aerial Photogrammetrist

Description:

This hands-on course uses Pix4DMapper to teach students how to create 3D models and orthomosaics from aerial and terrestrial crash-scene photography.

April 1-2, 2027

Content:

- 3D models and orthomosaics
- Geographic projections and geo-referencing
- Point clouds and textured meshes
- Manual tie points
- X-Y-Z point lists

CDR Analysis and Application

Description:

Explores how Event Data Recorder information can be interpreted and applied to traffic crash reconstruction. Students analyze CDR data and key crash parameters to better understand collision dynamics.

Prerequisites: Traffic Crash

Reconstruction 1 & 2, CDR Operator

September 13-17, 2027

Content:

- CDR/EDR terminology
- Crash pulse data
- Delta-v analysis
- Airbag deployment data
- PDOF calculations
- Pre-crash data

ACTAR: 40 CEUs

Crash Investigation and Reconstruction Electives



Supervisor of Crash Units

September 20-24, 2027

Description:

Designed for current and aspiring supervisors of crash investigation units, this interactive course combines leadership development with technical crash investigation skills. Students explore real-world supervisory challenges, improve investigative and report quality, and develop strategies for leading effective crash teams.

Content:

- Crash investigation & reconstruction fundamentals
- Leadership and team development
- Communication and ethics
- CDR data applications
- Investigative and report review
- Courtroom readiness

ACTAR: 40 CEUs

APPLY NOW!



<https://www.surveymonkey.com/r/NORTHWESTERN-TRCC-2027>

QUESTIONS? CONTACT US!

Patty Hernandez

Crash Program Coordinator

patricia.hernandez@northwestern.edu