

Edward A. Baker Jr.

Curriculum Vitae

Contact:

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OVERVIEW

Ed has been in Law Enforcement for over 30 years. He started at the Erie County Sheriff's Department in 1990 working the road patrol. He left the Sheriff's Department in 1992, and joined the West Seneca Police Department. Ed joined the Accident Investigation/Traffic Unit in 1997. After attending 4 weeks of Accident Investigation Training, he continued his education by attending several Accident Reconstruction Courses, and eventually becoming the first working police officer in NYS to be certified by ACTAR (#1404). Training in the Nikon Total Station measuring Accident/Crime Scenes by Automotive Safety Consultants, and Computer Diagramming at Visual Statement resulted in jobs working for both companies traveling across the country training police investigators in measuring/diagramming accident and crime scenes. Ed also instructs new Accident Investigators at the Erie County Central Police Services Academy in Basic Accident Investigation, Intermediate Accident Investigation, Advanced Accident Investigation, and Technical Accident Investigation.

Ed has been instrumental in developing the West Seneca Police Dept. Accident Investigation Unit into one of the most respected units in Erie County. He has been in the unit for over 20 years, and asked to assist other agencies with some of the high profile accident cases in the area.

EMPLOYMENT

DEPUTY SHERIFF 1990 - 1992
Erie County Sheriffs Dept.
Erie County, NY
Deputy Sheriff on road patrol.

POLICE OFFICER 1992 - PRESENT
Town of West Seneca Police Dept. *West Seneca, NY*

PATROL LIEUTENANT
Promoted May 22, 2006

PATROL CAPTAIN
Promoted July 8, 2013

ADMINISTRATIVE CAPTAIN
July 31, 2018

FORMER ASSOCIATE INSTRUCTOR

Automotive Safety Consultants Inc.

Instruction on Nikon Total Station and Vista FX accident diagramming software

FORMER ASSOCIATE INSTRUCTOR

Visual Statement Inc.

Instruction on Nikon Total Station and Vista FX accident diagramming software

INSTRUCTOR

Erie County Central Police Services Academy - Basic Accident Scene Investigation - Intermediate Accident Investigation - Advanced Accident Investigation - Technical Accident Investigation

INSTRUCTOR

NYS Department of Criminal Justice Services

Electronic Measuring Devices – Basic Accident Scene Investigation – Intermediate Accident Investigation – Advanced Accident Investigation – Technical Accident Investigation

EDUCATION

BASIC POLICE OFFICER ACADEMY

Erie County Central Police Services Academy

*Graduated number one overall in the Spring 1991 class.

JUNE, 1991
Orchard Park, NY

ACCIDENT SCENE INVESTIGATION

Niagara County Law Enforcement Academy

JULY, 1997
Sanborn, NY

- BASIC ACCIDENT INFORMATION
- MEASUREMENTS
 - TRIANGULATION
 - COORDINATE
- FIELD SKETCHES
- EXAMINATION PROCESS
 - ENVIRONMENT
 - TIRE MARKS
 - SKID MARKS
 - SCUFF MARKS
 - TIRE IMPRINTS
 - ROAD SCARS
 - SCARRING OF FIXED OBJECTS
 - VEHICLE DAMAGE
- DRAWING TECHNIQUES
- SCALE DIAGRAMS
- COEFFICIENT OF FRICTION AND DRAG FACTORS

- MINIMUM INITIAL VELOCITY
- VEHICLE LAMPS
- PHOTOGRAPHY

ADVANCED ACCIDENT SCENE INVESTIGATION
Erie County Department of Central Police Services

SEPTEMBER, 1997
Buffalo, NY

- POSITIVE AND NEGATIVE ACCELERATION
- FLIPS AND VAULTS
- FALLS
- ACCELERATION TESTS
- TYPES OF IMPACTS
 - FULL/ PARTIAL IMPACTS
- THRUST
- ROTATION
 - TIME POSITIONING AND DIAGRAMING
- LONGITUDINAL AND HEIGHT OF CENTER OF MASS
- VECTOR DIAGRAM BASICS AND METHOD
- MOMENTUM BASICS/SIMPLE MOMENTUM

COMMERCIAL VEHICLE WEIGHT ENFORCEMENT
Monroe Community College

JULY, 1998
Rochester, NY

TRAFFIC ACCIDENT RECONSTRUCTION 1
Northwestern University Traffic Institute

OCTOBER, 1999
Ithaca, NY

- VEHICLE DYNAMICS
 - BASIC EQUATIONS OF MOTION
 - NEWTONS LAWS OF MOTION
 - WEIGHT SHIFT IN SLOWING
 - RESULTANT DRAG FACTOR
- BASIC STATISTICS
 - SUM OF MOMENTS AND FORCES
 - COMPUTATION OF CENTER OF GRAVITY
- HEAVY TRUCK ACCIDENT RECONSTRUCTION
 - BRAKING CAPABILITIES
 - SPEED ESTIMATES
 - ROLL OVER PROBLEMS
- CONSERVATION OF MOMENTUM
 - COLLINEAR COLLISIONS
 - OBLIQUE COLLISIONS
 - VECTOR DIAGRAMS
- ENERGY
 - KINETIC ENERGY
 - SPEED ESTIMATES FROM DAMAGE
- ADDITIONAL RECONSTRUCTION CONSIDERATIONS
 - VEHICLE COLLAPSE AND DIRECTION OF THRUST

- ANGLE OF COLLISION AND MAXIMUM ENGAGEMENT
- MARKS ON THE ROAD
- DRIVER STRATEGY AND TACTICS
- SPEED FROM GEAR RATIOS
- DERIVATION OF EQUATIONS

- CASE PRESENTATION
 - TESTIMONY
 - REPORT WRITING
 - EXHIBITS

- CASE STUDIES
 - OPPOSITE DIRECTION COLLISION
 - SAME DIRECTION COLLISION
 - SINGLE VEHICLE ACCIDENT
 - ANGLE COLLISIONS
 - PEDESTRIAN ACCIDENT
 - CAR/TRAIN ACCIDENT
 - TRUCK ACCIDENTS

TRAFFIC ACCIDENT RECONSTRUCTION 2
Northwestern University Traffic Institute

FEBRUARY, 2000
Ithaca, NY

- TRIGONOMETRY IN RECONSTRUCTION
 - UNIT CIRCLE
 - TRIGONOMETRIC FUNCTIONS

- CONSERVATION OF MOMENTUM
 - OBLIQUE COLLISIONS
 - GRAPHICAL SOLUTION
 - MATHEMATICAL COLLISION

- OCCUPANT KINEMATICS
 - INJURY MECHANISMS
 - WHO WAS DRIVING

- PEDESTRIAN ACCIDENTS
 - PEDESTRIAN MOTION
 - VEHICLE DAMAGE
 - PEDESTRIAN INJURIES

- MOTORCYCLE ACCIDENTS
 - BRAKING CAPABILITIES
 - SPEED FROM DAMAGE

- CASE STUDIES
 - CAR-MOTORCYCLE
 - CAR PEDESTRIAN
 - WHO WAS DRIVING, SINGLE VEHICLE
 - INTERSECTION ACCIDENTS

HEAVY VEHICLE CRASH RECONSTRUCTION

Northwestern University Traffic Institute

SEPTEMBER, 2000

Ithaca, NY

- HEAVY VEHICLE NOMENCLATURE
- AIR BRAKES
- HEAVY VEHICLE TIRES
- VELOCITY DETERMINATION
- COLLISION BEHAVIOR - MOMENTUM/DAMAGE
- TACHOGRAPHS AND GEAR POSITION
- OFF TRACKING
- ROLLOVER
- COMPUTER ANALYSIS
- FIELD TESTING AND ANALYSIS
- CASE STUDIES

CHILD PASSENGER SAFETY TECHNICAL TRAINING

National Highway Traffic Safety Administration

SEPTEMBER, 2000

Amherst, NY

- INSTALLATION OF CHILD SEATS

CRASH ZONE C.A.D. DRAWING PROGRAM

Jones and Associates

DECEMBER, 2000

West Seneca, NY

- COMPUTER ASSISTED SCENE DRAWING

COMMERCIAL VEHICLE and HEAVY TRUCK SAFETY INSPECTIONS

Pennsylvania State Safety Academy

JUNE, 2001

Ithaca, NY

- BRAKING SYSTEMS
- HEAVY VEHICLE SAFETY INSPECTIONS

ACCELERATION and VERICOM FAMILIARIZATION

Vericom Computers Inc.

MARCH, 2003

Doylestown, PA

- DRAG FACTORS USING VERICOM COMPUTER

VEHICLE ENERGY/ CRUSH DEFORMATION RECONSTRUCTION

Ohio Peace Officer Training Commission

OCTOBER, 2004

Richfield, OH

- MEASURING PROTOCOL
 - ELASTIC AND PLASTIC COLLISIONS
 - CRUSH ANALYSIS LIMITATIONS
 - COORDINATE SYSTEM OF MEASUREMENT
- ENERGY
 - LAWS OF MOTION
 - CRASH PHASES
 - POTENTIAL/KINETIC/WORK ENERGY
 - ENERGY ANALYSIS
- CRASH 3 ALGORITHMS
 - TWO/FOUR/SIX POINT CRUSH FORMULAS
 - CALCULATING STIFFNESS COEFFICIENTS FROM CRASH DATA
- NARROW OBJECT FORMULAS AND PROBLEMS
 - NTSB
 - NYSTROM AND KOST
 - MORGAN AND IVEY
 - VICTOR CRAIG EQUATIONS
- TOTAL SYSTEM ENERGY ANALYSIS

INSTRUCTOR DEVELOPMENT SCHOOL
Erie County Central Police Services Academy

OCTOBER, 2005
Amherst, NY

CERTIFIED GENERAL TOPICS INSTRUCTOR

VISUAL STATEMENT/ NIKON TOTAL STATION OPERATION
Bristol, PA

May, 2006

- ACCIDENT SCENE DIAGRAMMING
- 2D ACCIDENT SCENE SIMULATAION
- 3D ACCIDENT SCENE ANIMATION
- NIKON TOTAL STATION OPERATION

PA STATE POLICE COLLISION RECONSTRUCTION SEMINAR

SEPTEMBER 2006
State College, PA

ADVANCED COMPLEX ANIMATION AND SIMULATION

MAY, 2007
Kamloops, BC

- VISUAL STATEMENT FX3 SOFTWARE
- ADVANCED 3D ANIMATION

POLICE SUPERVISOR TRAINING
 Erie County Central Police Services Academy

OCTOBER 2007

TRAFFIC CRASH RECONSTRUCTION
IPTM - Institute of Police Technology and Management

FEBRUARY 2010
Amherst, NY

- *TIME, DISTANCE, MOTION*
- *MOTORCYCLE CRASH INVESTIGATION*
- *VECTOR ANALYSIS*
- *VEHICLE DYNAMICS*
- *ACCELERATION TESTING*
- *KINETIC ENERGY*
- *CONSERVATION OF MOMENTUM*

BACHELOR OF SCIENCE - CRIMINAL JUSTICE
HILBERT COLLEGE

DECEMBER 2014
HAMBURG, NY

FBI NATIONAL ACADEMY #266
GRADUATE

DECEMBER 16, 2016
QUANTICO, VA

PEDESTRIAN/BICYCLIST INVESTIGATION LEVEL 1
INSTITUTE OF POLICE TECHNOLOGY AND MANAGEMENT

JULY 2017
ONLINE

BOSCH CDR TECHNICIAN TRAINING
INSTITUTE OF POLICE TECHNOLOGY AND MANAGEMENT

OCTOBER 2, 2018
ONLINE

PROFESSIONAL ACCREDITATIONS AND ORGANIZATIONS:

A.C.T.A.R. ACCREDITED (ACTAR #1404)
ACCREDITATION COMMISSION FOR TRAFFIC ACCIDENT RECONSTRUCTION
actar.org

ERIE COUNTY POLICE CAPTAINS AND LIEUTENANTS ASSOCIATION
BOARD OF DIRECTORS 2010 - 2013, AND PRESENT
VICE PRESIDENT 2014-2016