



Introduction to Forensic Science – CJ-242



Basic
Crime Scene Investigation
Techniques

ITT Technical Institute  School of Criminal Justice 



Primary Thought

- "There is but one straight course, and that is to seek truth and pursue it steadily."
--George Washington

ITT Technical Institute  School of Criminal Justice 

Objectives – First meeting

- The student will learn
 - The classroom rules
 - Fellow classmates
 - The instructor
 - The course the semester will follow
 - What this course will endeavor to teach the student
 - The student's responsibilities
 - The grading rubric
- Homework
 - Chapter 1 and chapter 3 and paper on forefathers

Me

- George F. Ripsom, MS, DABFE (rip)
- How to contact me.
 - Office (800) 527-2742
 - E-mail GRipsom@ITT-Tech.edu
 - Alt. gripsom@yahoo.com
- I am a forensic scientist/student
- I was an armed guard and a fingerprint specialist in the late 60's in Detroit




Me


- During the Vietnam War I was an Army MP, in various locations
- I then became a police officer in Detroit, while also being a loss prevention manager
- I then joined the Los Angeles County Sheriff's Department
- I have run/owned several forensic science companies
- I still operate my own company




Me

- I have been attending college since 1976
- I have numerous degrees, including a BS in Criminal Justice
- An MS in Forensic Science and one in Administration of Justice and Security
- I have maintained a 4.0 GPA
- Whom are you?
 - Name
 - Interest in course



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Ground Rules

- We will have a lecture for at least the first ½ of the session, then we will enjoy hands on projects.
- When you see my grandboy, the lecture is complete for the night, then we play.
- Tonight we will discuss the class rules, get our books.
- Notes can be found at:
 - File.ripsomassociates.com
 - User name: student
 - Password: itt-tech
 - Interested in forensic science files

Ground Rules

- I take role when I want. Be here, or you don't get on the role.
- When I am talking, nobody else is. Go outside.
- Take copious notes, notes can usually be used during quizzes, books cannot. 7-12 pgs a night.
- Participation is part of grade, that means involvement during class, or get a bad grade.
- Gots & Needs paper due at end of each session.
- NO eating or drinking in class.
- Read your assignments or no lab work.

Ground Rules

- Have fun in this class.
- Be attentive and learn
- I am not a good lecturer, so you must work to pay attention and stay awake.
- This is the format all lectures will take.
- If you miss a class, you still have a good chance
- If you miss 2 classes, you might pass
- If you miss 3 classes, your toast.
- You have NOT "Seen-It-All"



This Course

The collage includes the following elements:

- Fingerprints:** A close-up of a fingerprint and a grid of different fingerprint patterns labeled 'Left loop', 'Double loop', 'Right pocket loop', 'Left pocket loop', and 'Whorl'.
- Crime Scene Behavior:** An aerial view of a city street with a crime scene marked.
- Filaments:** A close-up of a red filament.
- Sketching:** A hand-drawn sketch of a filament.
- Microscope:** A close-up of a microscope lens.
- Blood Spatter:** A red blood spatter on a surface.
- Ballistics:** A handgun.
- D.N.A.:** A blue DNA double helix.

Logos for ITT Technical Institute and School of Criminal Justice are visible at the bottom.

What is my Primary Goal

- Teach you what you need to get hired as a CSI
 - Note taking
 - Sketching
 - Photography
 - Fingerprinting
- All other stuff is for fun and background
- You will learn
 - Collection techniques
 - Search techniques
 - Sketching techniques
 - Legal background
 - History of science
 - What is evidence
 - A CSI's place
 - How to break stuff

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How can it be used?

The photograph shows several investigators in white protective suits and masks examining a person lying on a stretcher. The scene is dimly lit, with a bright light source illuminating the body.

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Assorted Stuff

- Grading
 - Participation = 20%
 - Quizzes = 15%
 - Mid-Term = 15%
 - Project #2 = 15%
 - Final = 25%
 - Lab Partic. = 10%
- Late assignments are deducted 10% per week late. 3 weeks max.
- Project #1, due week 5, counts as mid-term
 - Photos of 5 lightbulbs
 - Evidence quality
 - 1 must be headlight
 - Filaments are interest
 - Scientific description
 - If bulbs submitted, they must be packaged as evidence

Assorted Stuff

- Project #2, due week 8, counts as project.
 - Lift 5 latent (hidden) fingerprints from various surfaces
 - 1 must be w/o brush and powder
 - Include evidence description of prints
 - 15% of total grade
- Project #3, part of final, process crime scene.
 - If not possible due to construction (or other factors) final written test will count as project #3.
- Turn in fingerprint cards, the more the better.

Course of Study

- Week #1
 - Basic definition of topic
- Week #2
 - Physical Properties
 - Organic Analysis
- Week #3
 - Microscopes
 - Hairs, fibers, paint
- Week #4
 - Drugs
 - Forensic Toxicology
- Week #5
 - Arson & Explosives
- Week #6
 - Fingerprints
- Week #7
 - Firearms, tool marks
- Week #8
 - Forensic Serology
 - DNA
- Week #9
 - Crime Scene

Course of Study

- Week #9
 - Bring in children (with clean feet)
 - If children not available, wear (bring) shoes with an intricate pattern
 - High Heels are a bad idea for this project, (but a good idea any other time)
 - We will be imprinting them, then forming a cast from the imprint
 - The project will be completed in week #10
 - In this session, the lab project will be completed prior to the lecture, so the children can be released to an adult and returned home or to school.

For next week

- Read chapter #1 in the hard cover text
- Read pages 62-70 in chapter #3 in the hard cover text.
- Due a 1 page paper on one of the principle forefathers of forensic science.
- By the way, I LOVE a good crash. If you guys have any stuff on good crashes, or odd signs, I wish you would consider getting them to me.

Manchester Ringway International Airport - UK

29/4/07
09:15 am

NIGHT BRIEFING

"Violent Encounters: A Study of Felonious Assaults on Our Nation's Law Enforcement Officers." FBI Study

Tuesday, DECEMBER 1, 2009



1



Four Seattle-area police officers were shot to death Sunday morning in a coffee shop in what officials called a brazen ambush by a lone gunman.

The officers, three men and a woman attached to the Lakewood Police Department, were conducting a routine pre-shift briefing over their laptops at the Forza Coffee Shop in Parkland, Washington.

2



Mark Reininger
Sgt. Reininger, 35, had 13 years of law enforcement experience. He is survived by a wife and three children.

3







New findings on how offenders train with, carry and deploy the weapons they use to attack police officers have emerged in a just-published, 5-year study by the FBI.



SUSPECTS:

- show signs of being armed that officers miss;
- have more experience using deadly force in "street combat" than their intended victims;
- practice with firearms more often and shoot more accurately;
- have no hesitation whatsoever about pulling the trigger.

"Violent Encounters: A Study of Felonious Assaults on Our Nation's Law Enforcement Officers," FBI Study

WEAPON CHOICE

- Predominately handguns were used in the assaults on officers and all but one were obtained illegally, usually in street transactions or in thefts.
-none of the attackers interviewed was "hindered by any law--federal, state or local--that has ever been established to prevent gun ownership. They just laughed at gun laws."

"Violent Encounters: A Study of Felonious Assaults on Our Nation's Law Enforcement Officers," FBI Study

FAMILIARITY

- Several of the offenders began regularly to carry weapons when they were 9 to 12 years old, although the average age was 17 when they first started packing, "most of the time." Gang members especially started young.
- Nearly 40% of the offenders had some type of formal firearms training, primarily from the military. More than 80% "regularly practiced with handguns, averaging 23 practice sessions a year," the study reports, usually in informal settings like trash dumps, rural woods, back yards and "street corners in known drug-trafficking areas."
- In reality, victim officers in the study averaged just 14 hours of sidarm training and 2.5 qualifications per year. Only 6 of the 50 officers reported practicing regularly with handguns apart from what their department required, and that was mostly in competitive shooting. Overall, the offenders practiced more often than the officers they assaulted.

CONCEALMENT

The offenders said they most often hid guns on their person in the front waistband, with the groin area and the small of the back nearly tied for second place. Some occasionally gave their weapons to another person to carry, "most often a female companion." None regularly used a holster, and about 40% at least sometimes carried a backup weapon.

In motor vehicles, they most often kept their firearm readily available on their person, or, less often, under the seat. In residences, most stashed their weapon under a pillow, on a nightstand, under the mattress--somewhere within immediate reach while in bed.

Almost all carried when on the move and strong majorities did so when socializing, committing crimes or being at home. About one-third brought weapons with them to work.

SHOOTING STYLE

• Twenty-six of the offenders [about 60%], including all of the street combat veterans, "claimed to be instinctive shooters, pointing and firing the weapon without consciously aligning the sights," the study says.

HIT RATE

• More often than the officers they attacked, offenders delivered at least some rounds on target in their encounters. Nearly 70% of assailants were successful in that regard with handguns, compared to about 40% of the victim officers.

• Offenders might have had an advantage because in all but 3 cases they fired first, usually catching the officer by surprise. "10 of the total victim officers had been wounded [and thus impaired] before they returned gunfire at their attackers."

MISSED CUTS

• Officers would less likely be caught off guard by attackers if they were more observant of indicators of concealed weapons, the study concludes. These particularly include manners of dress, ways of moving and unconscious gestures often related to carrying.

• Officers should look for unnatural protrusions or bulges in the waist, back and crotch areas," the study says, and watch for "shirts that appear rippled or wavy on one side of the body while the fabric on the other side appears smooth."

• Offenders reported frequently touching a concealed gun with hands or arms "to assure themselves that it is still hidden, secure and accessible" and hasn't shifted. Such gestures are especially noticeable "whenever individuals change body positions, such as standing, sitting or exiting a vehicle." If they run, they may need to keep a constant grip on a hidden gun to control it.

• Just as cops generally blade their body to make their sidearm less accessible, armed criminals "do the same in encounters with LEOs to ensure concealment and easy access."

"Violent Encounters: A Study of Felonious Assaults on Our Nation's Law Enforcement Officers." FBI Study

MIND-SET

• Thirty-six of the 50 officers in the study had "experienced hazardous situations where they had the legal authority" to use deadly force "but chose not to shoot." They averaged 4 such prior incidents before the encounters that the researchers investigated. "It appeared clear that none of these officers were willing to use deadly force against an offender if other options were available," the researchers concluded.

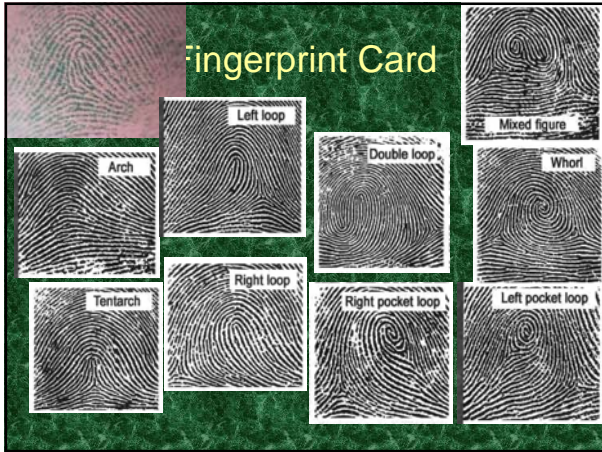
• "Offenders typically displayed no moral or ethical restraints in using firearms," the report states. "In fact, the street combat veterans survived by developing a shoot-first mentality."

• "Officers never can assume that a criminal is unarmed until they have thoroughly searched the person and the surroundings themselves." Nor, in the interest of personal safety, can officers "let their guards down in any type of law enforcement situation."

13









Play Time

- A tour of the lab and what we will play with
- Learn to roll a fingerprint card
 - It will be entered into our AFIS computer
 - It will have to be acceptable to the computer
 - That means it will have to be gooooooood
 - So the more cards you try, the more likely it will pass

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