

Examining the Evidence (EXAM)

Course Syllabus

WEEK I

DAY	TIME	WHAT	HOW (<i>Students will...</i>)
Day #1 Monday	Morning	Introduction to Forensic Science	<ul style="list-style-type: none"> • Discuss CTY Honor Code and sign contract. • K-W-L sheet and what students know, what to know, and learned today. • Set up notebooks, journals, and materials and CSI Team. • Who Am I? Sheets for introductions.
	Afternoon	Types of Crimes	<ul style="list-style-type: none"> • Receive an introduction to Forensic Science and Key vocabulary words. • Team building activity to list types of crimes and discuss what they are. • Safety guidelines, video, and sign contracts • Pre-Assessment for EXAM.
Day #2 Tuesday	Morning	Crime Scene Analysis and Protocols	<ul style="list-style-type: none"> • Discuss how to properly search and investigate a crime scene • Receive and introduction to the Case of “Mystery at Garrison High” and how to investigate a crime scene
	Afternoon		<ul style="list-style-type: none"> • Analyze crime scene sketches and use one of the four systematic search methods to list physical evidence.
Day #3 Wednesday	Morning	Crime Scene Investigations	<ul style="list-style-type: none"> • Crime Scene Units and Job Assignments for each CSI Team Member • Research the roles of crime scene analyst and perform the task of the role at the simulated crime scene.
	Afternoon		<ul style="list-style-type: none"> • Initial observations of a crime scene, note taking, and creating rough drafts, determining fixed points, and identifying physical evidence.
Day #4 Thursday	Morning	Identification, Collection and Packaging Physical Evidence	<ul style="list-style-type: none"> • Create a “polished sketch” of the crimes scene • Jig-saw into three groups to label/tag physical evidence, photograph evidence, and collect & package evidence
	Afternoon		<ul style="list-style-type: none"> • Discuss the types of physical evidence a crime scene and finish “jig-saw” activities.
Day #5 Friday	Morning	Footprint/ Shoe print Analysis	<ul style="list-style-type: none"> • Discuss how to identify shoe prints and impressions • Discuss the characteristics shoe prints make • Create a visible print of the tread marks in shoes
	Afternoon		<ul style="list-style-type: none"> • Collect data of shoe size vs. height, graph a scatter plot of the data, and find the line of regression to determine a correlation between height and shoe size.

WEEK II

DAY	TIME	WHAT	HOW <i>(Students will...)</i>
Day #6 Monday	Morning	Footprint Analysis	<ul style="list-style-type: none"> Examine the footprints found at the crime scene to determine the probable height of the person who made them using the graphed data and the line of regression.
	Morning		
Day #7 Tuesday	Morning	Document Examination	<ul style="list-style-type: none"> Discuss how to analyze handwriting and typewritten documents Complete the document analysis lab practicing to identify various samples of handwriting
	Afternoon	Handwriting Analysis Lab	<ul style="list-style-type: none"> Examine physical evidence of documents from the crime scene to determine individual characteristics.
Day #8 Wednesday	Morning	Fingerprint Analysis	<ul style="list-style-type: none"> Discuss how to determine the central ridge characteristics and class values of fingerprints according to the F.B.I. system
	Afternoon		<ul style="list-style-type: none"> Fingerprint themselves and identify key elements of their own fingerprints using hand-lenses
Day #9 Thursday	Morning	Fingerprint Analysis	<ul style="list-style-type: none"> Examine fingerprints of suspects at the crime scene and determine their FBI system class value Match fingerprints of suspects to those found on the physical evidence
	Afternoon	Lip Print Analysis	<ul style="list-style-type: none"> Examine lip impressions found on physical evidence and compare it to prints at crime scene and possible suspects.
Day #10 Friday	Morning	Microscopic Examination of Hair and Fibers	<ul style="list-style-type: none"> Review parts of the microscope and its proper care and use Discuss and practice how to find the total power of magnification, field of view, and clear observations using a microscope Observe hairs and fibers from humans and animals
	Afternoon		<ul style="list-style-type: none"> Complete observations of hairs and fibers from the crime scene to determine if it matches known samples

WEEK III

DAY	TIME	WHAT	HOW (<i>Students will...</i>)
Day #11 Monday	Morning	ABO Blood Typing Analysis	<ul style="list-style-type: none"> Research and discuss blood types, inheritance of blood, and how to use genotypes of blood to determine phenotypes. Complete blood typing lab to determine the antigens present in the blood samples found at the crime scene and determine the blood type of the victim of the crime.
	Afternoon		
Day #12 Tuesday	Morning	Blood Spatter Analysis	<ul style="list-style-type: none"> Discuss how the shape of a blood drop can reveal the angle of impact and height of origin for blood. Determine the angle and height of blood evidence at the crime scene. Graph the relationship between diameter and height of blood spatters, and calculate the line of regression using a graphing calculator.
	Afternoon		
Day #13 Wednesday	Morning	DNA Analysis	<ul style="list-style-type: none"> Review blood typing and blood spatter analysis Discuss how to analyze DNA and to perform gel electrophoresis. Complete lab on DNA analysis to match samples found at crime scene to possible suspects.
	Afternoon	Crime Scene Reconstruction and Solving	<ul style="list-style-type: none"> Discuss crime scene physical evidence and draw conclusions. Create a story board to explain how the physical evidence indicates what may have lead to the death of the victim in the case “Mystery at Garrison High”
Day #14 Thursday	Morning	Crime Scene Reconstruction and Solving	<ul style="list-style-type: none"> Video tape re-enactment of the crime and explain the evidence as a CSI Team Complete the “Deadly Picnic” as an assessment to crime solving
	Afternoon		<ul style="list-style-type: none"> Write final reports on the crime scene analysis Complete the <i>Post-Assessment</i> for EXAM.
Day #15 Friday	Morning	Case Studies in Forensic Science	<ul style="list-style-type: none"> Create a wanted poster profiling the student. Complete the activity, “Who Am I?” by identifying class members by their profiles.
	Afternoon	Family Day and Extravaganza	<ul style="list-style-type: none"> Share video of course with family and friends Attend Closing Activities.