

Examining the Evidence (EXAM) Course Syllabus

DAY	TIME	What (skills/knowledge/concepts/readings)	How (activities)
Day 1 Introductions, observation and deduction	Morning	<ul style="list-style-type: none"> • Introductions • Course expectations, honor code, lab safety • Defining forensics 	<ol style="list-style-type: none"> 1) CTY's Most Wanted name tag 2) Name Game 3) The importance of all contributors 4) Define forensics=rhetoric/legal argument 5) Detective kits
	Afternoon	<ul style="list-style-type: none"> • Pre-assessment, • The importance of being observant and specific in forensic science 	<ol style="list-style-type: none"> 1) Pre-assessment 2) How observant are you worksheet 3) What details do you remember from the picture? 4) picture? 5) Mystery Boxes
	Late Afternoon		<ol style="list-style-type: none"> 1) Review/complete observation assignment, 2) Read aloud 1-10 in <u>Forensics</u> about crime scene processing.
Day 2 Observation Questioning Deductive reason	Morning	<ul style="list-style-type: none"> • Continued work on observation/questioning/deductive reasoning • Locard's Principal of Exchange, direct vs circumstantial evidence 	<ol style="list-style-type: none"> 1) Mess up classroom-what is different today? 2) Logic game 3) Lecture on Locard's Principle 4) Lab 1-8 :staged crime/mock interviews 5) Make your own clue game (write story and give 8 clues)
	Afternoon	<ul style="list-style-type: none"> • How Crime scene is different than the scene of the crime • Crime Scene processing, • Interviewing witnesses • Forensic specialties • Forensic vocabulary 	<ol style="list-style-type: none"> 1) Go over observation of mock crimes 2) Lecture on forensic careers 3) Introduce forensics careers project 4) Go over crime scene processing: responsibilities of first responder.
	Late Afternoon	<ul style="list-style-type: none"> • Crime Scene processing • Diagram of crime scenes 	<ol style="list-style-type: none"> 1) Staged Crime Scene activity 2) Crime Scene Diagram 3) Start work on forensics career project

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Day 3 Background Biology/Chemistry /Physics	Morning	<ul style="list-style-type: none"> • Basic Biology/Science Review • Scientific Method • Using Microscope 	<ol style="list-style-type: none"> 1) Talk about crime scene/observation activity and crime scene diagram 2) Define basic science terms/subsections and how they relate to forensics. Introduce the scientific method. Explain cells, organs, atoms (comes from Greek word "indivisible") 3) Black box lab 4) Go over crime scene processing and diagram assignment again 5) Explain parts of a microscope
	Afternoon		<ol style="list-style-type: none"> 1) Look at slides through microscope 2) Mystery powder exercise
	Late Afternoon		<ol style="list-style-type: none"> 1) work on career projects in computer lab 2) go to library
Day 4 Prints-fingerprints, dentistry, footprints	Morning	<ul style="list-style-type: none"> • Prints - Fingerprinting, forensic dentistry, shoe marks/tire marks • Why are fingerprints important for forensic science? • Bertillon system • How are fingerprints different than other types of prints or means of identifying people 	<ol style="list-style-type: none"> 1) Lecture on prints: define different fingerprint patterns 2) Practice fingerprinting 3) Classify fingerprints 4) Fingerprinting lab
	Afternoon	<ul style="list-style-type: none"> • How is fingerprinting conducted at a crime scene? 	<ol style="list-style-type: none"> 1) Crime Scene Investigator speaker 2) Fingerprinting and dusting. Latent print lifting, etc... 3) The West Case: explain fingerprinting vs. DNA/Bertillon system
	Late Afternoon		Finish dusting, Work on diagram

DAY	TIME	What (skills/knowledge/concepts/readings)	How (activities)
Day 5 Hair and Fiber Analysis	Morning	<ul style="list-style-type: none"> Review Locards' principle Introduction to fiber and hair analysis How hair/fiber analysis works 	<ol style="list-style-type: none"> Catch up on diagramming project Catch up on fingerprinting exercises Practice using microscope Hair and fiber lab
	Afternoon	<ul style="list-style-type: none"> How hair analysis works 	Hair Analysis lab: His Hair, Her Hair, whose hair?
	Late Afternoon		Work on projects (Diagram project) The deadly picnic or dissecting an owl pellet (if they finish early)
Day 6 Serology/Blood Splatter	Morning	<ul style="list-style-type: none"> Define serology Blood type How blood is examined and used in forensics 	<ol style="list-style-type: none"> Blood typing lab Blood Spatter Analysis lab Luminol demonstration
	Afternoon	<ul style="list-style-type: none"> Forensic Careers 	Work on Career projects in computer lab
	Late Afternoon	<ul style="list-style-type: none"> Learn about the criminal justice system and how forensic science is used in court 	Judge Speaker
Day 7 Poisons/ Toxicology	Morning	<ul style="list-style-type: none"> History of poisons What is a poison? How do you know if someone has been poisoned? 	<ol style="list-style-type: none"> Analysis of Drugs and Poisons Lab Georgi Markov case
	Afternoon		1) Jakki lecture on poisons, Assign Poisons Project
	Late Afternoon		1) Computer lab, poisons project
Day 8 DNA/Genetics	Morning	<ul style="list-style-type: none"> Introduce genetics Punnet squares (inheritance) Structure and function of DNA Understanding how DNA technology is used in forensic science 	<ol style="list-style-type: none"> The Romanovs Punnet squares/blood typing Spit DNA extraction Understanding DNA worksheet Student presentations
	Afternoon	<ul style="list-style-type: none"> DNA extraction and identification How genetic "fingerprinting" is different than actual fingerprinting (can't distinguish between twins) 	<ol style="list-style-type: none"> Onion Extraction Demonstration of how gel works Continue student presentations as necessary

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	Late Afternoon		1) Nova video on Anastasia 2) Work on diagrams
Day 9 Document analysis	Morning	<ul style="list-style-type: none"> Ink analysis How to detect a forgery 	1) Forensics trivia 2) Genetics review 3) Student presentations 4) Lindbergh kidnapping case 5) Write on!: Cheque it out activity
	Afternoon	<ul style="list-style-type: none"> Handwriting Analysis 	1) Sick Note activity 2) Analysis of documents lab
	Late Afternoon	<ul style="list-style-type: none"> Chemistry. How spies might send messages. 	1) Analysis of documents lab: invisible ink
Day 10 Bones/Skeletons Forensic Anthropology	Morning	<ul style="list-style-type: none"> FACES Basic anatomy of the skeleton How to tell the gender of a skeleton 	1) Pin post-it on the T.A. 2) Bone bonanza 3) The great bone mystery 4) Teeth casting
	Afternoon	<ul style="list-style-type: none"> What a forensics anthropologist does 	1) Speaker on forensic anthropology
	Late Afternoon	<ul style="list-style-type: none"> Presentations, poison 	1) Project time in computer lab
Day 11 Crime Scene Tracking people using Scent	Morning	<ul style="list-style-type: none"> Using Skills learned, Crime Scene Enactment 	1) Crime scene enactment
	Afternoon	<ul style="list-style-type: none"> Tracking people using scent 	1) Canine Search and Rescue Speaker
	Late Afternoon	<ul style="list-style-type: none"> Fielding interviews about a crime 	1) Interviews from Faith's kids about crime scene
Day 12 Ballistics and Tool marks Explosives and arson	Morning	<ul style="list-style-type: none"> Explain marks that tools and weapons make 	1) Tool Lab
	Afternoon	<ul style="list-style-type: none"> Toxicology 	1) computer lab-poisons project
	Late Afternoon	<ul style="list-style-type: none"> Introduction to arson and explosives Explosives 	1) The Bombing of America video 2) Arson information/worksheet 3) speaker-ballistics

DAY	TIME	What (skills/knowledge/concepts/readings)	How (activities)
Day 13 Student presentations of Poison Project Entomology and forensics	Morning	<ul style="list-style-type: none"> • Presentations for poison project 	1) Presentations
	Afternoon	<ul style="list-style-type: none"> • Rate of decomposition • Entomology and forensics 	1) Article about the body farm 2) Information about maggots and other bugs
	Late Afternoon	<ul style="list-style-type: none"> • Using scientific evidence in writing a story 	1) Write short mystery in class
Day 14 Mystery writing Spies/ Mysteries/ Hidden identities	Morning	<ul style="list-style-type: none"> • Presentation of mystery story 	1) Presentations of mystery story
	Afternoon	<ul style="list-style-type: none"> • Post-assessment 	1) Post-assessment
	Late Afternoon		Project time, unfinished activities
Day 15 Closing		<ul style="list-style-type: none"> • Using critical analysis techniques learned in class 	1) Hollywood debunking activity 2) Forensic Jeopardy
	Afternoon		Parent Teacher conferences
	Late Afternoon		