

EXAMINING THE EVIDENCE

Course Syllabus- Week 1

Purple = Non-Lab Activities

Green = Lectures

Red = Lab Activities

Blue = Projects

Day	Session	Topics/Concepts	Lesson Format
Day 1	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> ○ Introductions ○ "Forensic Science" 	<ul style="list-style-type: none"> ○ Activity: CTY Most Wanted Poster ○ Activity: Name Game ○ Lecture: Introduction to "Forensic Science"
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> ○ Course Overview ○ Team-building 	<ul style="list-style-type: none"> ○ Honor Code & Course Expectations ○ Lab Safety ○ Detective Kits ○ <i>Recognizing the Value of All Contributions</i> activity
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> ○ Observation & Deduction Skills 	<ul style="list-style-type: none"> ○ <i>Pre-Assessment</i> ○ The Power of Observation ○ <i>At The Scene Of The Crime</i> activity
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> ○ Pre-Assessment ○ Observation Skills 	<ul style="list-style-type: none"> ○ Inductive vs. Deductive Reasoning ○ <i>Logic Puzzles</i> ○ <i>Deadly Picnic</i> activity
	<i>Homework</i>	Chapter 2 of Text- Answer #1-10	
Day 2	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> ○ Observation & Deduction Skills 	<ul style="list-style-type: none"> ○ Evidence Classification ○ Locard's Principle of Exchange
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> ○ Observation & Deduction Skills 	<ul style="list-style-type: none"> ○ CSI- Roles & Responsibilities ○ Processing a Crime Scene-Procedure ○ <i>Walking a Crime Scene- practice</i>
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> ○ Intro to Crime Scenes 	<ul style="list-style-type: none"> ○ Lab #1: Microscope Review & Practice - <i>Scopes</i> ○ <i>Describe Poison Project (10m)</i>
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> ○ Microscopes ○ Project Introduction 	<ul style="list-style-type: none"> ○ Lab #1: Processing a Crime Scene - <i>CSI's</i>
	<i>Homework</i>	Read Chapter 3-Answer True/False, Multiple Choice Questions	
Day 3	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> ○ Evidence: Fingerprints ○ Relevance & Use in Forensics 	<ul style="list-style-type: none"> ○ History & Importance of Fingerprinting in Forensics ○ Pattern Classification ○ <i>Who Robbed the Safe</i> activity
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> ○ Evidence: Fingerprints ○ Techniques Used in the Crime Lab 	<ul style="list-style-type: none"> ○ Demo: Techniques used for obtaining fingerprints
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> ○ Fingerprint Identification & Analysis 	<ul style="list-style-type: none"> ○ Lab #3: Fingerprint Analysis - <i>Sticky Fingers</i>
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> ○ Fingerprint Identification & Analysis 	<ul style="list-style-type: none"> ○ Lab #3: Fingerprint Analysis - <i>Sticky Fingers</i>
	<i>Homework</i>	Read Chapters On Hair and Fiber Evidence. Answer T/F and MC questions	

Day	Session	Topics/Concepts	Lesson Format
Day 4	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> ○ Evidence: Hair ○ Characteristics, Relevance to Forensics 	<ul style="list-style-type: none"> ○ Characteristics of Hair ○ Hair Identification ○ <i>My Hair</i> activity
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> ○ Hair Sample Analysis/Identification 	<ul style="list-style-type: none"> ○ Lab #4: Hair Analysis A) <i>Werewolf?</i> B) <i>His Hair, Her Hair, Whose Hair?</i>
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> ○ Evidence: Fibers ○ Characteristics; Relevance to Forensics 	<ul style="list-style-type: none"> ○ Sources, Characteristics, and Identification of Fibers
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> ○ Fiber Analysis/Identification 	<ul style="list-style-type: none"> ○ Lab #5: <i>Fiber Identification - Textile Murder Mystery</i>
	<i>Homework</i>	Read Chapter on Forensic Anthropology; Answer T/F, Multiple Choice Questions	
Day 5	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> ○ Review Vocabulary ○ Evidence: Bones ○ Skeleton Overview ○ Identifying features of bones 	<ul style="list-style-type: none"> ○ Vocabulary Assessment ○ The Human Skeleton: Structure & Function ○ <i>Know those Bones</i> activity ○ Bones as tools for identification- gender, age, weight, ethnicity, etc.
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> ○ Evidence: Teeth Impressions ○ "Forensic Dentistry" ○ Post-Mortem Evidence ○ Rigor Mortis, Livor Mortis, Algor Mortis, TOD, COD, MOD, etc. 	<ul style="list-style-type: none"> ○ Forensic Dentistry-Overview ○ <i>Crime Bites</i> activity ○ Post-Mortem Information
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> ○ Teeth Impressions- Analysis & Identification ○ Bones- Analysis & Identification ○ Post-Mortem Evidence 	<ul style="list-style-type: none"> ○ Lab #6 "Thriller Case" (Bone identification and analysis, dental impression identification, medical examiner case studies)
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> ○ Teeth Impressions- Analysis & Identification ○ Bones- Analysis & Identification ○ Post-Mortem Evidence 	<ul style="list-style-type: none"> ○ Lab #6 "Thriller Case" (Bone identification and analysis, dental impression identification, medical examiner case studies) ○ Week 1 Wrap-up
	<i>Homework</i>	Finish Project	

EXAMINING THE EVIDENCE

Course Syllabus- Week 2

Purple = Non-Lab Activities

Green = Lectures

Red = Lab Activities

Blue = Projects

OFF MONDAY, JULY 4TH

Day	Session	Topics/Concepts	Lesson Format
Day 7	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> • Ballistics • Trajectory <ul style="list-style-type: none"> ▪ Angles, Analysis • Evidence: Glass Fracture <ul style="list-style-type: none"> ▪ Fracture types; patterns ▪ Ordering multiple fractures 	<ul style="list-style-type: none"> • Ballistics <ul style="list-style-type: none"> ▪ Gun Classification ▪ Bullet Markings • Trajectory- Concept Introduction <ul style="list-style-type: none"> ▪ Angles (L, R, up, down) • Glass Fractures-Overview <ul style="list-style-type: none"> ▪ Radial vs. concentric ▪ Single fracture vs. Multiple
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> • Toxicology: Analysis Techniques 	<ul style="list-style-type: none"> • Lab #7 Trajectory & Glass Evidence - Snipers
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> • Toxicology <ul style="list-style-type: none"> ▪ Classifications and Analysis ▪ Field Tests 	<ul style="list-style-type: none"> • Toxicology Overview <ul style="list-style-type: none"> ▪ Drug & Poison Classification ▪ Field Tests (presumptive positive) • Poison Presentations
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> • Ballistics, Glass & Trajectory Analysis 	<ul style="list-style-type: none"> • Lab #7- Drug and Poison Identification and Analysis - Just Say No
	Homework	Read Chapters on Casting and Tool Marks. Answer T/F and MC questions	
Day 8	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> • Evidence: Shoe Prints & Tire Marks • Plaster of Paris models/impressions 	<ul style="list-style-type: none"> • Shoe Prints/Tire Marks- Characteristics & Analysis • Immovable Evidence? <ul style="list-style-type: none"> ▪ Demo: Impressions in the "field" • Weapons Overview <ul style="list-style-type: none"> ▪ Classifications & markings
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> • Mystery Writing 	<ul style="list-style-type: none"> • Introduce Final Project- Expert Witness Testimony & Mystery Writing <ul style="list-style-type: none"> ▪ Focus: Plot & Characters
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> • Shoe Print Modeling & Analysis 	<ul style="list-style-type: none"> • Lab #9: Casting & Impression Analysis - Bad Impressions
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> • Shoe Print Modeling & Analysis 	<ul style="list-style-type: none"> • Finish "Bad Impressions" Lab
	Homework	Read Chapter on Document Analysis and answer T/F, MC Questions	

Day	Session	Topics/Concepts	Lesson Format
Day 9	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> Evidence: Ink Markings <ul style="list-style-type: none"> Chromatography Evidence: Handwriting <ul style="list-style-type: none"> Characteristics, Analysis, & Historical Significance Forgery: History & Prevention 	<ul style="list-style-type: none"> Ink Markings: Analysis Techniques (15m) Handwriting Overview: styles/patterns & character analysis; (20m) Handwriting Analysis (10m) Overview of Forgery: major types, historical cases, prevention (20m)
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> Document Analysis 	<ul style="list-style-type: none"> Lab #10: Document Analysis (Ink Chromatography, Handwriting Analysis, Secret Message Decryption) - <i>Spy Games</i>
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> Movie- Plot and Character Development 	<ul style="list-style-type: none"> Begin <i>Clue</i> (the movie)
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> Movie- Plot and Character Development 	<ul style="list-style-type: none"> Finish <i>Clue</i> (the movie)
	<i>Homework</i>	Read Chapter on Blood Analysis. Complete Mystery Development worksheet	
Day 10	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> Probability Mendelian Genetics Punnett Squares 	<ul style="list-style-type: none"> Lab #11 "Probability" Basics of Probability <i>A Monk's Tale</i>- Mendel's Contribution to Science <ul style="list-style-type: none"> Traits & Inheritance in Pea Plants, Independent Assortment Introduction to Punnett Squares: Setup, Results, Geno/Phenotypes
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> Introduction to DNA- Discovery, Structure, and Function 	<ul style="list-style-type: none"> The "DNA vs. Protein Debate" Discovery of DNA- important experiments
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> Visualizing DNA 	<ul style="list-style-type: none"> Lab #12: Strawberry DNA Extraction DNA Structure
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> Visualizing DNA Final Project Prep. 	<ul style="list-style-type: none"> DNA modeling kits Mock Trial Discussion & Role Assignments
	<i>Homework</i>	Full version of Mystery Writing due MONDAY!	

EXAMINING THE EVIDENCE

Course Syllabus- Week 3

Purple = Non-Lab Activities

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Blue = Projects

Day	Session	Topics/Concepts	Lesson Format
Day 11	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> Review Blood Analysis <ul style="list-style-type: none"> Typing Transfusions 	<ul style="list-style-type: none"> Review Punnett Squares Blood Overview <ul style="list-style-type: none"> Composition ABO +/- Classification Transfusion Matches Lab #13 Part 1: Blood Analysis- Transfusions
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> Blood Analysis 	<ul style="list-style-type: none"> Lab #13 Part 2: Blood Analysis- Typing
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> Blood Analysis 	<ul style="list-style-type: none"> Lab #13 Part 3: Blood Analysis- Splatter/Pattern
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> Mock Trial 	<ul style="list-style-type: none"> Mock Trial- Final Prep.
	<i>Homework</i>	Mock Trial- Final Prep. Final project back-stories due tomorrow! (2 paragraphs)	
Day 12	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> Cumulative Crime Scene #1 	<ul style="list-style-type: none"> Crime Scene #1: "The Case of Lois McArthur"
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> Cumulative Crime Scene #1 	<ul style="list-style-type: none"> Crime Scene #1: "The Case of Lois McArthur"
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> Mock Trial #1 	<ul style="list-style-type: none"> Mock Trial #1
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> DNA as evidence 	<ul style="list-style-type: none"> Modern DNA forensics
	<i>Homework</i>	Bring either evidence of typed background/police report paragraphs tomorrow!	
Day 13	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> Cumulative Crime Scene #2 	<ul style="list-style-type: none"> Crime Scene #2A: "Kidnapped! The Case of Jason Worth" or Crime Scene #2B: "Drug Bust"
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> Cumulative Crime Scene #2 	<ul style="list-style-type: none"> Crime Scene #2A: "Kidnapped! The Case of Jason Worth" or Crime Scene #2B: "Drug Bust" Mock Trial Prep
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> Mock Trials 	<ul style="list-style-type: none"> Mock Trials #2A and #2B
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> Final Project 	<ul style="list-style-type: none"> Final project prep
	<i>Homework</i>	Final Project Presentations TOMORROW!	

Day	Session	Topics/Concepts	Lesson Format
Day 14	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> • Final Project Presentations 	<ul style="list-style-type: none"> • Course Review- Game • “Expert Witness Testimony” <ul style="list-style-type: none"> ○ Students present their evidence and crime scene scenario to a courtroom of their peers (playing various roles) ○ Questioned by prosecuting and defense attorneys. ○ Judgment determined by a jury.
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> • Final Project Presentations 	<ul style="list-style-type: none"> • “Expert Witness Testimony” <ul style="list-style-type: none"> ○ Students present their evidence and crime scene scenario to a courtroom of their peers (playing various roles) ○ Questioned by prosecuting and defense attorneys. ○ Judgment determined by a jury.
	Early Afternoon (12:30-1:30)	<ul style="list-style-type: none"> • Post-Assessment • Course/Instructor Evaluation 	<ul style="list-style-type: none"> • Post-Assessment • Course/Instructor Evaluation
	Late Afternoon (1:40-2:30)	<ul style="list-style-type: none"> • Final Project Presentations 	<ul style="list-style-type: none"> • “Expert Witness Testimony” <ul style="list-style-type: none"> ○ Students present their evidence and crime scene scenario to a courtroom of their peers (playing various roles) ○ Questioned by prosecuting and defense attorneys. ○ Judgment determined by a jury.
	<i>Homework</i>	None	
Day 15	Early Morning (9:00-10:15)	<ul style="list-style-type: none"> • Combing Concepts: Final Crime Scene • Prepare for Parent Visit 	<ul style="list-style-type: none"> • Lab Cleanup • Prepare for Parent Visit- Develop “Clue Mystery” Scenario
	Late Morning (10:30-11:30)	<ul style="list-style-type: none"> • Post-Assessment • Prepare for Parent Visit 	<ul style="list-style-type: none"> • Final Preparations for Parent Visit • Final Thoughts & Comments
	Afternoon (1:00)	Parent Visit & Presentations	