

Forensic Science and Crime Scene Investigation Alignment Checklist

Lesson	Task	Met (Y/N)	ACOS #	Standard
Foundational Standards				
1.07, 2.02, 7.06	1.07 Search and Secure Evidence 2.02 Safe Evidence Collection Exercise 2.02 Bloodborne Pathogens 7.06 Simplified Drug Analysis	Y	1	Incorporate safety procedures in handling, operating, and maintaining equipment; utilizing materials and protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
Notes				
2.05	2.05 Résumé	Y	2	Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
Notes				
1.04, 2.04, 2.05	1.04 Training, Force, and Defense 2.04 Lab Careers 2.04 Forensic Job Ad 2.05 Résumé	Y	3	Explore the range of careers available in the field, investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
Notes				
8.05, 8.07	8.05 Resource Evaluation 8.07 Can Forensic Science be Trusted? Conclusion	Y	4	Demonstrate digital literacy by using digital and electronic tools appropriately, safely, and ethically.

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Notes				
			5	Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
Notes				
1.04	1.04 Training, Force, and Defense	Y	6	Train for appropriate physical fitness and agility tests.
Notes				
1.04	1.04 Training, Force, and Defense	Y	7	Demonstrate knowledge of defensive tactics and proper application of the use of force continuum in relevant situations.
Notes				
Introduction to Forensic Science				
1.02, 1.07 3.03 4.04 5.02	1.02 Case Study 1.07 CSI Blunders 3.03 Bitemark Evidence Discussion 3.03 Bitemark Evidence 4.04 DNA Basics Exercise 4.04 DNA Case Study 5.02 Questioned Documents Exercise 5.02 Questioned Documents Case Study	Y	1	Obtain, evaluate, and communicate information to describe the role of forensic science and evidence collection from historical cases in the criminal justice system.
Notes				
2.03, 2.04 8.01 8.02	2.03 To the Lab 2.04 Lab Careers 2.04 Forensic Job Ad	Y	2	Apprise the different types of forensic science laboratories and professional organizations.

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8.05 8.07	8.01 Death Investigation Discussion 8.01 Death Investigation – Problems and Solutions 8.02 Forensic Science Discipline Analysis 8.05 Resource Evaluation 8.07 Can Forensic Science be Trusted? Conclusion			
Notes				
1.01 8.02 8.05 8.07	1.01 Think Like a Scientist 8.02 Forensic Science Discipline Analysis 8.05 Resource Evaluation 8.07 Can Forensic Science be Trusted? Conclusion	Y	3	Apply concepts of the scientific method to forensic science and to crime scene investigations.
Notes				
Physical Evidence				
2.01 6.02 8.02	2.01 Types of Evidence Exercise 6.02 Examining Firearm Evidence 8.02 Forensic Science Discipline Analysis	Y	4	Classify physical evidence based on how it is produced.

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Notes				
2.06, 2.07, 2.09	2.06 Case Study 2.07 Hair Evidence Exercise 2.07 Hair Lab 2.09 Soil Analysis Exercise 2.09 Soil Lab	Y	5	Plan and carry out an investigation to determine the value of physical and trace evidence.
Notes				
5.01 5.02	5.01 Handwriting Analysis 5.02 Questioned Documents Exercise 5.02 Questioned Documents Case Study	Y	6	Use models for the evaluation of handwriting and document evidence.
Notes				
8.03 8.04 8.05 8.07	8.03 Virtual Autopsy 8.03 Forensic Discipline Error Discussion 8.04 Predicting PMI 8.05 Crime Scene Creatures 8.05 Resource Evaluation 8.07 Forensic Anthropology 8.07 Skull Examination Discussion	Y	7	Construct explanations from collections of evidence, using various pathological and anthropological techniques.
Notes				

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8.07	8.07 Forensic Anthropology 8.07 Skull Examination Discussion	Y	8	Develop and use mathematical models to estimate height from bone length.
Notes				
1.03 3.03 3.07	1.03 Crime Scene Procedure 3.03 Bite Mark Evidence 3.07 Expert Witness Testimony	Y	9	Distinguish between admissible and inadmissible scientific and technical evidence supplied by expert witnesses in criminal cases.
Notes				
Crime Scene Procedures, Techniques, and Analysis				
2.03	2.03 To the Lab	Y	10	Explain the differences between processing and analyzing evidence.
Notes				
2.03	2.03 To the Lab	Y	11	Analyze and interpret data from different types of crime scene evidence to determine which forensic crime lab unit would have responsibility. Example: soil, blood spatter, shoe print, hair, computer, glass, pills, fibers
Notes				
1.05 7.01	1.05 Eyewitness Discussion – Conclusions 7.01 Poisoner’s Handbook	Y	12	Construct an explanation of how scientific forensic techniques used in collecting and submitting evidence for admissibility in court have evolved over time.
Notes				

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1.03, 1.06, 1.07	1.03 Crime Scene Procedure 1.06 Crime Scene Report 1.07 Search and Secure Evidence	Y	13	Plan and carry out investigations using the scientific protocols for analyzing a crime scene. Example: Set perimeter, search, isolate, collect evidence, photograph, sketch, and record.
Notes				
2.06, 2.09 4.03	2.06 Case Study 2.09 Soil Lab 4.03 Analyze a Case	Y	14	Construct an argument from evidence explaining the relevance of possible evidence at a site of an investigation.
Notes				
1.06	1.06 Crime Scene Report	Y	15	Develop models to analyze and communicate information obtained from the crime scene. Example: Properly document and sketch a crime scene.
Notes				
Blood and Physiological Fluid Evidence				
4.02	4.02 Blood Typing	Y	16	Plan and carry out an investigation to use antigens and antibodies to determine blood type and to identify crime suspect(s) based on the results.
Notes				
4.01	4.01 Serological Evidence Discussion 4.01 Serological Evidence	Y	17	Gather and share information about forensic identification of body fluids.
Notes				
4.07	4.07 Officer Tip Sheet	Y	18	Summarize important considerations in forensic investigation of sexual assault.
Notes				

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4.04 4.05 4.06	4.04 DNA Basics Exercise 4.04 DNA Case Study 4.05 DNA Collection and Analysis 4.06 Electrophoresis Lab	Y	19	Analyze and interpret DNA evidence to match a suspect to biological samples, identifying conditions and/or situations where errors commonly occur, and cite reasons for possible errors.
Notes				
4.05	4.05 DNA Collection and Analysis	Y	20	Collect and preserve biological evidence for DNA analysis.
Notes				
2.02	2.02 Bloodborne Pathogens	Y	21	Differentiate among blood-borne pathogens and describe their effects on the human body.
Notes				
Physical Pattern Evidence and Technological Examinations				
3.01 6.02	3.01 Toolmark Identification 6.02 Examining Firearm Evidence	Y	22	Analyze distinctive features of toolmark striations and impressions.
Notes				
3.02 3.03	3.02 Tire and Shoe Evidence Exercise 3.03 Bitemark Evidence Discussion 3.03 Bitemark Evidence	Y	23	Analyze distinctive features of tire, footwear, and other impression evidence.
Notes				

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5.02	5.02 Chromatography Lab	Y	24	Plan and carry out an experiment using the process of chromatography to analyze and identify ink marks.
Notes				
2.07, 2.08, 2.09 6.02 7.02	2.07 Hair Lab 2.08 Glass Evidence 2.09 Soil Analysis Exercise 2.09 Soil Lab 6.02 Examining Firearm Evidence 7.02 Spectrophotometer 7.02 Detecting Poison	Y	25	Perform physical and chemical analyses of evidence obtained from a crime scene, victim, and suspect, using spectrophotometers and other appropriate equipment to answer pertinent questions in the investigation. Examples: examine broken glass to determine the direction, size, and velocity of the object which struck it; determine whether soil from a victim's shoe matches soil at the scene
Notes				
3.04 3.05 3.06	3.04 Developing Fingerprints Exercise 3.05 Fingerprint Analysis Exercise 3.05 Review Quiz 3.06 Fingerprint Lab	Y	26	Develop fingerprints and classify characteristics for identification by using distinguishing features.
Notes				
3.04 3.06	3.04 Developing Fingerprints Exercise 3.06 Fingerprint Lab	Y	27	Collect and analyze latent prints using proper forensic tools and techniques. Examples: black powder, iodine, cyanoacrylate adhesive
Notes				
3.04 3.05 3.06	3.04 Developing Fingerprints Exercise 3.05 Fingerprint Analysis Exercise	Y	28	Retrieve fingerprints and classify characteristics for identification by using distinguishing features. Examples: core, delta, bifurcation, bridge

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	3.06 Fingerprint Lab			
Notes				
6.01 6.02	6.01 Shooting Scene Evidence 6.02 Examining Firearm Evidence	Y	29	Analyze and compare examples of firearm evidence.
Notes				
6.01	6.01 Shooting Scene Evidence	Y	30	Construct an explanation based on the path of a moving projectile to indicate how the trajectory of an object can determine the position of the person releasing the object.
Notes				
Forensic Toxicology, Drugs, and Drug Analysis				
7.01 7.05	7.01 Poisoner's Handbook 7.05 Drug Classes Exercise 7.05 Medical Marijuana Legalization Discussion 7.05 Medical Marijuana Legalization	Y	31	Differentiate among the five distinct categories or schedules of drugs, including chemical composition and effects on the human body.
Notes				
7.03 7.04 7.06	7.03 Toxicology Report 7.04 Determining Toxic Levels 7.06 Simplified Drug Analysis	Y	32	Critique methods for laboratory analysis of controlled substance and design a solution to determine toxicity of a drug in a human based on body mass.
Notes				

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8.04 8.05 8.06	8.04 Predicting PMI 8.05 Crime Scene Creatures 8.05 Resource Evaluation 8.06 Accumulated Degree Hours	Y	33	Ask questions to develop a time-of-death estimation in an actual or simulated situation, using signs of rigor mortis and stages of decomposition.
Notes				
7.07	7.07 BAC	Y	34	Compare the effects of various levels of alcohol in the human body.
Notes				
Arson and Explosives Investigations				
6.03	6.03 Combustion	Y	35	Compare types of combustion reactions and give examples.
Notes				
6.04	6.04 Interpreting Fire Patterns	Y	36	Analyze burn patterns in the investigation of fire scenes.
Notes				
6.05	6.05 Ignitable Liquids 6.05 Detecting Ignitable Liquids	Y	37	Gather, evaluate, and share information on methods for recovery and analysis of residues of ignitable liquids.
Notes				
6.06	6.06 Explosives Exercise 6.06 Explosives Case Discussion	Y	38	Classify explosives and explosions based on their characteristics.
Notes				
Cybersecurity				

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5.05 5.06	5.05 Cyber Most Wanted Discussion 5.05 Cyber Most Wanted 5.06 Cybersecurity Lab 5.06 Cyber Hygiene Tip Sheet	Y	39	Assess cybersecurity tools, techniques, and technologies.
Notes				
5.03 5.04	5.03 Digital Evidence Basics 5.04 Digital Evidence Collection	Y	40	Analyze basic computer evidence recovery techniques.
Notes				
5.07	5.07 Intrusion Investigation	Y	41	Demonstrate strategies for starting and managing a network intrusion investigation.
Notes				
5.03 5.04	5.03 Digital Evidence Basics 5.04 Digital Evidence Collection	Y	42	Assess methods of mobile device seizure and evidence recovery.
Notes				
Communication				
2.07, 2.09 3.01 3.02 3.06 7.06	2.07 Hair Lab 2.09 Soil Lab 3.01 Toolmark Lab 3.02 Impression Lab 3.06 Fingerprint Lab	Y	43	Create incident reports and forensic laboratory analysis reports.

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	7.06 Simplified Drug Analysis			
Notes				
3.07	3.07 Expert Witness Testimony	Y	44	Cite evidence and provide oral testimony in actual or simulated situations.
Notes				