Implementation date
Fall 2009

PROGRAM CONCENTRATION: **Public Safety**
CAREER PATHWAY: **Law and Justice**
COURSE TITLE: **Criminal Investigation and Forensics**

Prerequisites:
Introduction to Law and Justice
Law, Community Response and Policing

Course Description: This course will provide students with an opportunity to explore the basic processes and principles of forensic science as it relates to criminal investigation. Students will learn the importance of the identification, collection, and processing of evidence and of its contribution to the criminal investigation. Students will learn of the legal responsibilities and challenges which the forensic investigator may encounter.

Students will also learn of the role of the criminal investigator. Included in this course will be the importance of preserving and documenting the crime scene and enabling the investigator to analyze evidence and its relationship to the crime. The student will also study interviews and interrogations and how those statements are used as evidence in court. Students will express understanding of their knowledge by composing clear, concise, and thorough investigative reports, indicating a successful conclusion to an investigation.

FORENSICS: AN INTRODUCTION AND ANALYSIS
Students will develop a basic understanding of requirements for one to work as a forensic scientist. Student will learn that the success of a forensic scientist depends upon his or her ability to work with law enforcement officers and prosecutors in order to reach a successful completion to an investigation. Finally, students will study the CSI Effect and understand the implications it has on the successful prosecution of a crime.

PS-CIF-1. Students will explore the role and responsibilities of the forensic scientist.

a. Explain the relationship between attorneys and the forensic scientist.
b. Compare and contrast the roles of the forensic scientist to the police officer and lawyer.
c. Identify problems a forensic scientist may experience related to testifying in court.
d. Describe the forensic scientist's role as an expert witness.
e. Explain the role of the crime lab in a criminal investigation.
f. Discuss the CSI Effect and the resulting problems which may arise during criminal prosecution.

Academic Standards:
SSCG6 The student will demonstrate knowledge of civil liberties and civil rights.

SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

ELA10RC2 The student participates in discussions related to curricular learning in all subject areas.

IDENTIFICATION, COLLECTION AND EXAMINATION OF TRACE EVIDENCE:
Students will be able to identify different types of trace evidence and determine its evidentiary value to an investigation. Students will learn the importance of the interpretation of this evidence and will be successful in performing basic on-scene processes, collections, and evaluations of each of these types of evidence.

PS-CIF-2. Students will analyze and understand the significance of hairs, fibers, paint, glass, soil and blood spatter to a forensic investigation.

a. Describe the purpose for the collection and processing of various types of evidence.
b. Demonstrate the correct procedures for collecting various types of trace evidence.
c. Distinguish between natural and synthetic fibers.
d. Illustrate the process of using blood spatter analysis to recreate an investigation.
e. Explain the importance of glass, soil, and paint evidence.

Academic Standards:
MM2G2 Students will define and apply sine, cosine, and tangent ratios to right triangles.

MM2G4 Students will find and compare the measures of spheres.

MM4P1 Students will solve problems (using appropriate technology).

MM4P2 Students will reason and evaluate mathematical arguments.

MM4P3 Students will communicate mathematically.

ELA12W3 The student uses research and technology to support writing.

ELA12C2 The student demonstrates understanding of manuscript form, realizing that different forms of writing require different formats.

ELA12LSV1 The student participates in student-to-teacher, student-to-student, and group verbal interactions.

FINGERPRINTS

Students will discuss the history of fingerprints. Students will also identify prints and classify, as well as use various methods to develop fingerprints.

PS-CIF-3. Students will demonstrate methods of fingerprint development.

a. Identify fingerprint patterns.
b. Compare fingerprints from various sources.
c. Make positive identifications.
d. Identify various appropriate methods of fingerprint development.
e. Demonstrate methods of fingerprint.
f. Explain the history of fingerprint examination.

Academic Standards:
ELA12C1 The student demonstrates understanding and control of the rules of the English language, realizing that usage involves the appropriate application of conventions and grammar in both written and spoken formats.

ELA12C2 The student demonstrates understanding of manuscript form, realizing that different forms of writing require different formats.

SSCG6 The student will demonstrate knowledge of civil liberties and civil rights.

SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

IMPRESSIONS EVIDENCE: SHOES, TEETH, TIRES, TOOL MARKS, FIREARMS AND BALLISTICS

Students will study typical examples of impression evidence. Students will compare and contrast ballistics evidence and understand how that evidence is produced by firearms. Students will study the role of the forensic dentist and examine issues involving identifying the dead through dentition and identifying suspects through bite marks. Additionally, tire, footwear, and tool impressions will be examined.

PS-CIF-4. Students will demonstrate an understanding of impressions evidence and how that evidence is used in a criminal investigation.

a. Describe how ballistic evidence is created and how it is used in an investigation.
b. Produce casts of footwear and tire impressions.
c. Discuss various methods of enhancing shoe and tire impressions.
d. Describe the role of the forensic odontologist in the identification of bodies and in mass disasters.
e. Explain how impressions are used to solve crime.

Academic Standards:

SAP1 Students will analyze anatomical structures in relationship to their physiological functions.

ELA12C1 The student demonstrates understanding and control of the rules of the English language, realizing that usage involves the appropriate application of conventions and grammar in both written and spoken formats.

ELA12C2 The student demonstrates understanding of manuscript form, realizing that different forms of writing require different formats.

SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

THE BODY AS EVIDENCE

Students will understand the role and responsibilities of a forensic pathologist. They will understand why autopsies are performed and the potential evidence that can be obtained from the body. Additionally, students will study decomposition and its stages and environmental influences.

PS-CIF-5. Students will understand the methods involved when using the body as evidence for a criminal investigation.

a. Describe the various methods of death.
b. Identify the bones of the human body.
c. Distinguish both gender and racial features from a skeleton.
d. Discuss the nature and importance of body fluids as evidence.
e. Explain autopsy.
f. Explain the process of decomposition.
g. Explain the role of a forensic pathologist.

Academic Standards:

SAP2 Students will analyze the interdependence of the integumentary, skeletal, and muscular systems as these relate to the protection, support and movement of the human body.

SAP3 Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.

SEROLOGY AND DNA

Students will understand the civil and criminal uses of DNA evidence. Students will also become familiar with the different human sources from which DNA can be determined. Students will understand the legal issues from the point of view of a forensic scientist. Students will address the ethical challenges and application of scientific logic in the concept of the criminal justice system. Additionally, students will address admissibility issues and legal challenges which result from DNA evidence.

PS-CIF-6. Students will describe the evidentiary value of the human body evidence.

a. Describe both civil and criminal uses of DNA evidence.
b. List the various sources from which DNA can be extracted from humans.
c.. Understand the importance and application of DNA profiling in criminal investigations.
d. Argue possible challenges which may be presented in court to refute DNA evidence.
e. Describe serology and its use as evidence.

Academic Standards:
SB2 Students will analyze how biological traits are passed on to successive generations.

SAP5 Students will analyze the role of the reproductive system as it pertains to the growth and development of humans.

DRUGS AND TOXICOLOGY
Students will be exposed to the function of the crime laboratory in regard to the analysis of controlled substances. Additionally, students will study the relationship that toxicology has in determining the cause of death during autopsy.

PS-CIF-7. Students will understand how substances in the body are identified.

a. Explain gas chromatography.
b. Describe the effects on the body of various types of drugs of abuse.
c. List the different human specimens which can be tested for toxins.
d. Describe the role of the forensic toxicologist during a post-mortem investigation.

Academic Standards:
SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

SAP2 Students will analyze the interdependence of the integumentary, skeletal, and muscular systems as these relate to the protection, support and movement of the human body.

SAP3 Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.

SC1 Students will analyze the nature of matter and its classifications.

INTERVIEWS AND INTERROGATIONS

Students will learn of the legal aspects involved in the interrogation of suspects. Additionally, students will learn appropriate methods for conducting interviews and interrogations and for eliciting confessions. Students will also examine various forms of technology which assist investigators in gaining the truth.

PS-CIF-8. Students will demonstrate basic interview techniques.

a. Identify sources of information available to investigators.
b. Compare interviews and interrogations.
c. Distinguish between confessions and admissions.
d. Explain important case law as it relates to interviews and interrogations.
e. Demonstrate basic interview techniques.

Academic Standards:

ELA12LSV1 The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ELA10RC2 The student participates in discussions related to curricular learning in all subject areas.

SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

ELA10RC4 The student establishes a context for information acquired by reading across subject areas.

NOTES, REPORTS, AND LEGAL ISSUES

Students will learn to take concise notes from which they will write clear and accurate police incident reports. Students will learn the importance of this form of written communication which is essential for the criminal investigation. Students will become familiar with the numerous types of police reports and understand their application for criminal and civil processes.

PS-CIF-9. Students will complete concise investigative reports.

a. Identify the appropriate reports to write for various situations.
b. Create clear, concise, and thorough reports.
c. Differentiate between the various types of police reports.
d. List the questions complete reports should answer.
e. Describe the legal implications of police reports.

Academic Standards:

SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

SSCG18 The student will demonstrate knowledge of the powers of Georgia's state and local governments.

ELA10W1 The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and signals closure.

ELA12LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

PRELIMINARY INVESTIGATION AND PRESERVING THE CRIME SCENE

Students will learn appropriate procedures involved when placed in the situation of being the first responder to a crime scene. This will include rendering aid and identifying witnesses, suspects, and possible evidence. Students will also learn methods of preserving the crime scene.

PS-CIF-10. Students will demonstrate the ability to successfully investigate a crime scene.

a. Explain the role of evidence in a criminal investigation.
b. Create base-line and triangulation diagrams of a crime scene.
c. Demonstrate the photography of a crime scene.
d. Explain the use of photographic evidence in an investigation.
e. Explain the various search patterns utilized to search for evidence.
f. Describe the significance of securing and preserving a crime scene.
g. Describe the importance of recreating a crime scene.
h. Demonstrate methods of locating and identifying evidence at a crime scene.

Academic Standards:

SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

ELA10RC2 The student participates in discussions related to curricular learning in all subject areas.

ELA10RC3 The student acquires new vocabulary in each content area and uses it correctly.

CONDUCTING A HOMICIDE INVESTIGATION

Students will investigate a mock crime. They will collect evidence, interview witnesses and suspects, process evidence, and produce appropriate police reports. Students will apply knowledge gained throughout the course to reach a successful conclusion to this investigation.

PS-CIF-11. Students will demonstrate the ability to conduct a homicide investigation.

a. Secure a crime scene.
b. Photograph a mock crime scene.
c. Diagram a mock crime scene.
d. Collect, package, and process evidence.
e. Interview witnesses and interrogate suspects.
f. Write reports documenting each step of the investigation.
g. Identify methodologies unique to homicide investigation.

Academic Standards:
ELA12LSV1 The student participates in student-to-teacher, student-to-student, and group verbal interactions.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

MM1G1 Students will investigate properties of geometric figures in the coordinate plane.

MM1G3 Students will discover, prove, and apply properties of triangles, quadrilaterals, and other polygons.

MM1P3 Students will communicate mathematically.

MM1P4 Students will make connections among mathematical ideas and to other disciplines.

MM1P5 Students will represent mathematics in multiple ways.

CRIMINOLOGICAL THEORY
Students will explore various theories of criminology. Students will understand the application of psychology to the legal process.

PS-CIF-12. Students will examine various approaches to explain crime.

a. Describe the various theories/approaches to explain crime.
b. Recognize the relationship between psychological profiling to modus operandi.

Academic Standards:
ELA12LSV1 The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ELA10RC2 The student participates in discussions related to curricular learning in all subject areas.

ELA10RC3 The student acquires new vocabulary in each content area and uses it correctly.

SSCG21 The student will demonstrate knowledge of criminal activity.

SB2 Students will analyze how biological traits are passed on to successive generations.

SERIAL CRIMINALS

Students will be introduced to criminal profiling as it relates to the investigation of serial offenders. Students will understand the application of psychology to explore criminal investigations.

PS-CIF-13. Students will demonstrate knowledge of criminal profiling as well as the role of the profiler in an investigation.

a. Explain a basic profile of a serial killer.
b. Describe the role of a profiler in a serial investigation and as an expert witness during prosecution.
c. List classification levels of serial offenders (organized, disorganized).

Academic Standards:

ELA12LSV1 The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ELA10RC2 The student participates in discussions related to curricular learning in all subject areas.

ELA10RC3 The student acquires new vocabulary in each content area and uses it correctly.

SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

SB2 Students will analyze how biological traits are passed on to successive generations.

ORGANIZED CRIME

Students will learn investigative practices related to organized crime. They will learn of major organized crime groups as well as methods commonly used to combat these

groups. Students will also be exposed to major laws which have been enacted to combat organized crime.

PS-CIF-14. Students will explore organized crime.

a. Describe the history of organized crime.
b. Identify various hate groups.
c. Describe operations of street gangs.
d. Describe techniques used to investigate organized crime.
e. List federal laws which have been enacted to combat organized crime and hate groups.

Academic Standards:
ELA12LSV1 The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ELA10RC2 The student participates in discussions related to curricular learning in all subject areas.

ELA10RC3 The student acquires new vocabulary in each content area and uses it correctly.

SSCG21 The student will demonstrate knowledge of criminal activity.

SSCG22 The student will demonstrate knowledge of the criminal justice process.

Reading Across the Curriculum

Reading Standard Comment
After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal learning. Students encounter a variety of informational as well as fictional texts, and they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in *context*.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

CTAE-RC-1 Students will enhance reading in all curriculum areas by:

Reading in All Curriculum Areas

-Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
-Read both informational and fictional texts in a variety of genres and modes of discourse.
-Read technical texts related to various subject areas.

Discussing Books

-Discuss messages and themes from books in all subject areas.
-Respond to a variety of texts in multiple modes of discourse.
-Relate messages and themes from one subject area to messages and themes in another area.
-Evaluate the merit of texts in every subject discipline.
-Examine author's purpose in writing.
-Recognize the features of disciplinary texts.

Building Vocabulary Knowledge

-Demonstrate an understanding of contextual vocabulary in various subjects.
-Use content vocabulary in writing and speaking.
-Explore understanding of new words found in subject area texts.

Establishing Context

-Explore life experiences related to subject area content.
-Discuss in both writing and speaking how certain words are subject area related.
-Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards

were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.

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