\*For the purposes of this document, Tennessee CTE students are considered to be enrolled in course “levels” (i.e., Level 1, Level 2, Level 3, and Level 4) due to variation in the *grade* level at which students may take a course. For example, a tenth-grade student may be enrolled in a Level 1 course. For this reason, reviewers are asked to evaluate materials on the basis of their alignment to particular *course levels*, not *grade* *levels* or *grade bands*.

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| **SECTION I**  **Alignment to Standards**  *Materials must meet 80% of indicators in Section I*  **Students and teachers using the materials as designed devote the majority of time in each level to the course standards.\*** | | | |
| *Of the 25 standards listed below, 20 indicators must be marked “yes” as having aligned to mastery the standard in order for the textbook to pass section I.* **Use an “x” in the selected “yes” or “no” column. Avoid using the actual word “yes” or “no”** | | | |
| **Evidence of 80% Alignment to Standards** | | | |
| **Standard** | **Yes** | **No** | **Evidence/Notes** |
| 1. Articulate important historical events and contributors impacting the evolution of forensic science and crime scene investigation in the United States. Contributors should include, but are not limited to Locard, Orfila, Bertillon, Galton, Goddard, and Bass. Use a timeline or other graphic to illustrate the major developments from the 16th century to today, citing specific textual evidence from textbooks, online and print journals, and other websites. Include any legislation that mandates the practice of forensic science. |  |  |  |
| 1. Define the term Criminalistics. Research a case study that involved a criminalist and report on how his/her involvement in the case made a difference in the outcome. Cite evidence from textbooks, online and digital professional journals, and case studies to support claims. Include not only physical evidence analysis but also the application of physical and natural sciences. |  |  |  |
| 1. Describe the eleven sections of forensic science as defined by the American Academy of Forensic Science, and discuss associated laws that guide scientific work in forensics. Develop a visual or graphic presentation to explain the roles and functions of each and relate to law and public safety careers studied in previous courses. |  |  |  |
| 1. Develop an argumentative essay that makes a claim about the influence of media on the practices of crime investigations, citing a specific trial and the investigation leading up to it. Discuss the differences between the gathering and presenting of crime scene evidence and the depiction of that system in movies and television. Develop claim(s) and counterclaim(s) without prejudice, supplying data and text-based evidence from sources consulted. |  |  |  |
| 1. Citing information found on websites in the forensic links section of the American Academy of Forensic Science, news media, and legislation, describe the evolution of the modern crime laboratory. Discuss the features of present-day crime labs, including the differences between public and private. Explore how they have changed law enforcement and the conviction of criminals, their services and capabilities, and the new or emerging technologies they use. |  |  |  |
| 1. Using the American Academy of Forensic Science and Young Forensic Scientist Forum, investigate occupations within forensic science. Demonstrate an understanding of each occupation by accurately articulating the following: 2. Roles and responsibilities of the position 3. Comparison of similar careers available in local, state, federal, and military systems 4. Educational, training, and certification requirements |  |  |  |
| 1. Develop a career profile for at least three occupations related to forensic science and criminal investigations, using print, online, and/or personal interview sources to capture at minimum the following:    1. Job description    2. Essential knowledge and skills needed for the career    3. Program or path of study to reach occupational goals, beginning with high school and proceeding through postsecondary    4. Licensure and credentialing requirements    5. Non-educational job requirements such as physical fitness tests, minimum age, and psychological evaluations |  |  |  |
| 1. Compare and contrast the roles and responsibilities of parole and probation officers with that of law enforcement officers in relation to search and seizure. Explain how evidence collected by the parole/probation officer might be used in court. Research cases such as Dulin v. State of Indiana and determine how the exclusionary rule was applied in each case. |  |  |  |
| 1. Design a tutorial for a new law enforcement officer that outlines the steps in crime scene documentation. Include the following information:    1. First responder responsibilities    2. Preliminary survey    3. Crime scene search methods including triangulation, rectangular coordinates, straight-line methods, and transecting baseline coordinates    4. Identification and marking of evidence    5. Narrative description    6. Administrative notes    7. Photography    8. Sketching/Diagramming    9. Evidence recovery log |  |  |  |
| 1. Review the legal and acceptable methods for collecting, packaging, and preserving physical evidence and the initiation and maintenance of the chain of custody. Using a mock crime scene:    1. Document the crime scene using the steps identified in standard 10    2. Demonstrate proper methods of evidence collection and packaging    3. Initiate the chain of custody for each piece of evidence collected |  |  |  |
| 1. Identify emerging technologies and techniques being utilized by law enforcement while gathering and processing evidence at a crime scene and in the laboratory. Review a current or recent court case that utilized one of these technologies or techniques. Write an argumentative essay debating if the technology could be an infringement on the defendant’s rights. An example would be maintaining a database of DNA from birth. |  |  |  |
| 1. Investigate the science surrounding the physical properties of matter, and explain how they are related to the role of the law enforcement officer when collecting evidence. Apply the principles of temperature, weight and mass, density, and refractive index in the context of forensic science. |  |  |  |
| 1. Explain the physical composition of glass and relate the characteristics of various types such as tempered and laminated. Demonstrate the skill of identifying the classifications of glass fragments, and calculate the projectile path by examining glass fractures at a simulated scene. |  |  |  |
| 1. Examine the forensic tools used in a field sobriety test and a blood alcohol test, and describe legal guidelines that must be followed when performing each of these tests as they relate to the constitutional rights of suspects. Evaluate concepts of toxicology and metabolism of alcohol, and determine the effects of alcohol on persons of different weights, ages, and genders. |  |  |  |
| 1. Evaluate a death related to chemicals that can be harmful or poisonous to the human body, such as drugs or carbon monoxide. Describe the process for collecting and preserving toxicology evidence and the techniques used for detecting the type of substance. |  |  |  |
| 1. Analyze the scientific basis of tests performed on various body fluids and/or stains at a crime scene to determine their origins. Demonstrate collection of simulated body fluids from a staged crime scene to preserve and prevent contamination of the sample. Include in the demonstration compliance with OSHA standards of practice when dealing with blood and body fluids. |  |  |  |
| 1. Describe the techniques used to excavate bones from a crime scene and the methods for distinguishing human bones from animal bones. Identify the parameters for determining the age, sex, and possible ethnicity of a human skull. |  |  |  |
| 1. Review an autopsy report to determine the time and cause of death through evaluation of body temperature, rigor mortis, post mortem lividity, appearance of eyes, skin color, and presence of entomology. Document findings in an informative essay or other report. |  |  |  |
| 1. Debate in a written or oral presentation how DNA testing and the Combined DNA Index System (CODIS) have changed the criminal justice system, citing evidence from professional print or digital journals, case studies, court cases, or interviews with law enforcement or forensic scientists to develop claim(s) and counterclaim(s). |  |  |  |
| 1. Document the interpretation of a simulated bloodstain pattern, including the following information:    1. Data gathered from pattern analysis concerning the violent event    2. Impact of surface texture, directionality, and angle on pattern    3. Calculation of angle of impact    4. Methods to determine the area of convergence and area of origin for impact spatter patterns    5. Whether the spatter is classified as a low-, medium-, or high-velocity impact spatter    6. How the pattern was created and distinguishing features    7. Type of spatter |  |  |  |
| 1. Compare and contrast the physical and microscopic properties of human hair vs. animal hair. Demonstrate the skills of collecting and preserving hair evidence at a simulated crime scene. |  |  |  |
| 1. Explain the automated fingerprint identification system (AFIS), why it was developed, and how it is currently being utilized in law enforcement. Demonstrate the procedure for detecting fingerprints, developing latent prints, and preserving developed prints. |  |  |  |
| 1. Identify the recognizable characteristics, from bullets and cartridge casings, at a staged crime scene or from a case study. Explain in a graphic presentation how these characteristics are placed in the National Integrated Ballistics Information Network and the uses of the network by local, state, and federal law enforcement. |  |  |  |
| 1. Research the concepts surrounding bullet trajectory and its uses in criminal investigations for determining victim and suspect locations and movements at a crime scene. Prepare a professional written report summarizing this information. |  |  |  |
| 1. Compare and contrast the various forensic techniques used at a crime scene and in the laboratory to determine gunpowder residue, shoe prints, tool marks, tire marks and bite marks. Provide a full explanation of each test. |  |  |  |
| **Additional comments on the standards alignment with the materials:** | | | |
| **Materials meet 80% Alignment with section 1: Standards?**  This means that at least 20 boxes in this section were marked “YES.” If 6 or more “No” boxes are marked, then this program does not pass. | Yes | No |  |
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| **SECTION II**  **RIGOR**  *Each level’s instructional materials reflect high expectations for all students. They follow faithfully the level of rigor intended in the standards and support student learning through high-quality presentation of content and challenging application. In order to pass section II each of the following metrics must be met with a “yes.”* **Use an “x” in the selected “yes” or “no” column. Avoid using the word “yes” or “no”** | | | |
| **METRICS:** | | | |
| |  |  |  |  | | --- | --- | --- | --- | |  | **YES** | **No** | **Evidence/Notes** | | 1. Materials effectively meet the level of rigor intended in the standards. |  |  |  | | 1. High-quality problems and questions designed to invite exploration and support conceptual understanding are included throughout. A variety of problems, both conceptual and technical, enable students to connect course content and transfer understandings to new situations. |  |  |  | | 1. All materials reinforce literacy and mathematics instruction in career and technical education environments. Texts are of an appropriately challenging Lexile level; mathematics problems push students to apply quantitative reasoning to specific technical situations. |  |  |  | | 1. Materials support the development of fluency, including regular opportunities to practice knowledge and skills, appropriately apply tools, and use technology. |  |  |  | | 1. Domain-specific vocabulary and industry terminology are frequently used to explain topics, or to make connections to key workplace activities. |  |  |  | | | | |
| **Additional comments on rigor of materials:** | | | |
| **Materials meet all 5 metrics in section II: Rigor**  This means that each of the 5 boxes were marked “yes” in section II. | **YES** | **NO** |  |
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| **SECTION III**  **POSTSECONDARY AND CAREER READINESS**  *Materials promote multiple pathways to student success beyond high school, highlighting a range of career opportunities aligned with entry and exit points to and from appropriate postsecondary programs. Aligned pathways are presented in a fair and balanced fashion that underscores the need for advanced training beyond high school, but does not privilege one set of credentials over another and is consistent with occupational requirements.* **Use an “x” in the selected “yes” or “no” column. Avoid using the word “yes” or “no.”** | | | |
| **METRICS:** | | | |
| |  |  |  |  | | --- | --- | --- | --- | |  | **Yes** | **No** | **Evidence/Notes** | | 1. Technical skills are promoted within the context of applicable industries and work environments. They are *not* presented in isolation or without meaningful connections to aligned careers. |  |  |  | | 1. Materials showcase a diversity of career and postsecondary opportunities for students upon completion of high school, including all applicable levels of postsecondary training (i.e., technical schools, community colleges, four-year universities, etc.). |  |  |  | | 1. Connections to relevant certifications and other credentials are clearly explained, and their value in industry is communicated where appropriate. |  |  |  | | 1. Materials provide opportunities for students to practice and reflect upon 21st century (or “soft”) skills. |  |  |  | | | | |
| **Justification/Notes** | | | |
| **Materials meet each of the 4 metrics for Postsecondary and Career Readiness.**  **This means ALL 4 metrics are marked “yes” in section III.** | **Yes** | **No** |  |
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| **SECTION IV**  **ADDITIONAL CRITERIA AND INDICATORS OF QUALITY** |
| *Materials must meet all non-negotiable criteria in Section I, II, and III to be aligned to the course standards and receive state approval.*  *Section IV includes additional criteria for alignment to the course standards as well as indicators of quality. Section IV will not disqualify a text from being approved on the state adoption list. This section provides districts with additional information to use during their decision-making process.* **Use an “x” in the selected “yes” or “no” column. Avoid using the word “yes” or “no.”** |

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| **Alignment to industry standards** | **Yes** | **No** | **JUSTIFICATION/NOTES** |
| 1. Materials are aligned to relevant **national and/or industry standards** where appropriate. For example, *Mechatronics I* materials routinely make reference to and reinforce connections with national industry certification standards from companies like Siemens. |  |  |  |
| 1. Materials are aligned to discipline-specific **content or pedagogical frameworks** frequently used by professionals in associated industries. For example, Differentiating Instruction materials routinely make reference to and reinforce connections with instructional strategies that meet the educational needs of the student, as specified in the standards. |  |  |  |
| 1. Connections are made to discipline-specific **professional societies and organizations**, and their value is clearly communicated in the materials. For example, *School Counseling* materials routinely make reference to and reinforce connections with the American School Counselor Association (ASCA). |  |  |  |

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| **SEQUENCE AND PROGRESSION OF STANDARDS** | **Yes** | **No** | **JUSTIFICATION/NOTES** |
| 1. Connections are made within a course between knowledge and skills, where these connections are appropriate and natural, as set forth by the standards. |  |  |  |
| 1. Materials are vertically coherent with previous courses and these connections are made clear in the materials. The connections are explicit to the other materials in the course. |  |  |  |
| 1. For materials in a series, content progressions reflect the progressions as seen in the standards. These progression connections are clearly indicated in the materials. Any discrepancies in content progressions enhance the required learning in each course and are clearly aimed at helping students meet the standards as written. |  |  |  |

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| **TEACHER SUPPORTS** | **Yes** | **No** | **JUSTIFICATION/NOTES** |
| 1. Materials support teachers in ways such as the following: planning (including ideas for pacing), sample lessons, laboratory applications, projects, vocabulary, and instructional strategies. |  |  |  |
| 1. Materials include teacher-directed materials that explain the role of the practice activities in the classroom and in students’ content development. Problems and activities present opportunities for students to make use of and exhibit the skills as they work on mastery of content. |  |  |  |
| 1. Opportunities and resources are provided for teachers to conduct independent study to enhance their own understanding and knowledge of course topics. Materials provide avenues to seek and identify quality professional development in a manner that will support student learning. |  |  |  |

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| **USABILITY** | **Yes** | **No** | **JUSTIFICATION/NOTES** |
| 1. Materials can be accessed in a variety of formats and media, including but not limited to printed textbooks, digital storage devices, online applications, and cloud-based forums. |  |  |  |
| 1. Materials are clear and easy to read for students, teachers, and parents. The design and graphics do not distract from the course content and are appropriately placed. |  |  |  |
| 1. Materials include supports for all learners, e.g., ELs, students who are below grade level, advanced students. |  |  |  |
| 1. Materials are culturally and politically sensitive to the full range of potential users, and do not advance unwarranted opinions that are not factually based. All materials strive to present content, not beliefs. |  |  |  |

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| **ASSESSMENTS** | **Yes** | **No** | **JUSTIFICATION/NOTES** |
| 1. Materials include aligned assessments at regular intervals throughout the text(s), or as supplements to the primary instructional materials. Aligned assessments may include end-of-chapter quizzes, unit test modules, and practice exams. |  |  |  |
| 1. Materials offer ideas and guidance on measuring student progress throughout the duration of the aligned course(s). Formative, interim, and summative assessment strategies are all presented to inform instructional strategy and improvement. |  |  |  |
| 1. Materials include assessment accommodations for diverse learners, including sample items that capture multiple measures of student proficiency. |  |  |  |

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| **SECTION V *(optional)*:FOCUS AREA**  *Use this section to capture qualitative observations on an additional area of focus, if presented in the materials. A sample focus area for the Health Informatics program of study is provided in the following. If applicable, fill in the blank table with observations and notes.* |

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| **III. EXAMPLE: FOCUS IN Health Information Systems** | **NOTES** |
| 1. Materials include coverage of major parameters most frequently reported in health databases. |  |
| 1. Materials draw clear connections between policy and procedures and the legal ramifications of health informatics. |  |