Ohio CTE

Law & Public Safety

Business Operations/21st Century Skills: Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field. 1

1 **Employability Skills: Develop career awareness and employability skills (e.g., face-to-face, online) needed for gaining and maintaining employment in diverse business settings.** 1.1

1 Identify the knowledge, skills and abilities necessary to succeed in careers. 1.1.1

2 Identify the scope of career opportunities and the requirements for education, training, certification, licensure and experience. 1.1.2

3 Develop a career plan that reflects career interests, pathways and secondary and postsecondary options. 1.1.3

4 Describe the role and function of professional organizations, industry associations and organized labor and use networking techniques to develop and maintain professional relationships. 1.1.4

5 Develop strategies for self-promotion in the hiring process (e.g., filling out job applications, resumé writing, interviewing skills, portfolio development). 1.1.5

6 Explain the importance of work ethic, accountability and responsibility and demonstrate associated behaviors in fulfilling personal, community and workplace roles. 1.1.6

7 Apply problem-solving and critical-thinking skills to work-related issues when making decisions and formulating solutions. 1.1.7

8 Identify the correlation between emotions, behavior and appearance and manage those to establish and maintain professionalism. 1.1.8

9 Give and receive constructive feedback to improve work habits. 1.1.9

10 Adapt personal coping skills to adjust to taxing workplace demands. 1.1.10

11 Recognize different cultural beliefs and practices in the workplace and demonstrate respect for them. 1.1.11

12 Identify healthy lifestyles that reduce the risk of chronic disease, unsafe habits and abusive behavior. 1.1.12

2 **Leadership and Communications: Process, maintain, evaluate and disseminate information in a business. Develop leadership and team building to promote collaboration.** 1.2

1 Extract relevant, valid information from materials and cite sources of information. 1.2.1

2 Deliver formal and informal presentations. 1.2.2

3 Identify and use verbal, nonverbal and active listening skills to communicate effectively. 1.2.3

4 Use negotiation and conflict-resolution skills to reach solutions. 1.2.4

5 Communicate information (e.g., directions, ideas, vision, workplace expectations) for an intended audience and purpose. 1.2.5

6 Use proper grammar and expression in all aspects of communication. 1.2.6

7 Use problem-solving and consensus-building techniques to draw conclusions and determine next steps. 1.2.7

8 Identify the strengths, weaknesses and characteristics of leadership styles that influence internal and external workplace relationships. 1.2.8

9 Identify advantages and disadvantages involving digital and/or electronic communications (e.g., common content for large audience, control of tone, speed, cost, lack of non-verbal cues, potential for forwarding information, longevity). 1.2.9

10 Use interpersonal skills to provide group leadership, promote collaboration and work in a team. 1.2.10

11 Write professional correspondence, documents, job applications and resumés. 1.2.11

12 Use technical writing skills to complete forms and create reports. 1.2.12

13 Identify stakeholders and solicit their opinions. 1.2.13

14 Use motivational strategies to accomplish goals. 1.2.14

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3 **Business Ethics and Law: Analyze how professional, ethical and legal behavior contributes to continuous improvement in organizational performance and regulatory compliance.** 1.3

1 Analyze how regulatory compliance affects business operations and organizational performance. 1.3.1

2 Follow protocols and practices necessary to maintain a clean, safe and healthy work environment. 1.3.2

3 Use ethical character traits consistent with workplace standards (e.g., honesty, personal integrity, compassion, justice). 1.3.3

4 Identify how federal and state consumer protection laws affect products and services. 1.3.4

5 Access and implement safety compliance measures (e.g., quality assurance information, safety data sheets [SDSs], product safety data sheets [PSDSs], United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration [OSHA]) that contribute to the continuous improvement of the organization. 1.3.5

6 Identify deceptive practices (e.g., bait and switch, identity theft, unlawful door-to-door sales, deceptive service estimates, fraudulent misrepresentations) and their overall impact on organizational performance. 1.3.6

7. Identify the labor laws that affect employment and the consequences of noncompliance for both employee and employer (e.g., harassment, labor, employment, employment interview, testing, minor labor laws, Americans with Disabilities Act, Fair Labor Standards Acts, Equal Employment Opportunity Commission [EEOC]). 1.3.7
8. Verify compliance with computer and intellectual property laws and regulations. 1.3.8
9. Identify potential conflicts of interest (e.g., personal gain, project bidding) between personal, organizational and professional ethical standards. 1.3.9

4. **Knowledge Management and Information Technology: Demonstrate current and emerging strategies and technologies used to collect, analyze, record and share information in business operations.** 1.4
   1. Use office equipment to communicate (e.g., phone, radio equipment, fax machine, scanner, public address systems). 1.4.1
   2. Select and use software applications to locate, record, analyze and present information (e.g., word processing, e-mail, spreadsheet, databases, presentation, Internet search engines). 1.4.2
   3. Verify compliance with security rules, regulations and codes (e.g., property, privacy, access, accuracy issues, client and patient record confidentiality) pertaining to technology specific to the industry pathway. 1.4.3
   4. Use system hardware to support software applications. 1.4.4
   5. Use information technology tools to maintain, secure and monitor business records. 1.4.5
   6. Use an electronic database to access and create business and technical information. 1.4.6
   7. Use personal information management and productivity applications to optimize assigned tasks (e.g., lists, calendars, address books). 1.4.7
   8. Use electronic media to communicate and follow network etiquette guidelines. 1.4.8

5. **Global Environment: Evaluate how beliefs, values, attitudes and behaviors influence organizational strategies and goals.** 1.5
   1. Describe how cultural understanding, cultural intelligence skills and continual awareness are interdependent. 1.5.1
   2. Describe how cultural intelligence skills influence the overall success and survival of an organization. 1.5.2
   3. Use cultural intelligence to interact with individuals from diverse cultural settings. 1.5.3
   4. Recognize barriers in cross-cultural relationships and implement behavioral adjustments. 1.5.4
   5. Recognize the ways in which bias and discrimination may influence productivity and profitability. 1.5.5

6 Analyze work tasks for understanding and interpretation from a different cultural perspective. 1.5.6

7 Use intercultural communication skills to exchange ideas and create meaning. 1.5.7

8 Identify how multicultural teaming and globalization can foster development of new and improved products and services and recognition of new opportunities. 1.5.8

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6 **Business Literacy: Develop foundational skills and knowledge in entrepreneurship, financial literacy and business operations.** 1.6

1 Identify business opportunities. 1.6.1

2 Assess the reality of becoming an entrepreneur, including advantages and disadvantages (e.g., risk versus reward, reasons for success and failure). 1.6.2

3 Explain the importance of planning your business. 1.6.3

4 Identify types of businesses, ownership and entities (i.e., individual proprietorships, partnerships, corporations, cooperatives, public, private, profit, not-for-profit). 1.6.4

5 Describe organizational structure, chain of command, the roles and responsibilities of the organizational departments and interdepartmental interactions. 1.6.5

6 Identify the target market served by the organization, the niche that the organization fills and an outlook of the industry. 1.6.6

7 Identify the effect of supply and demand on products and services. 1.6.7

8 Identify the features and benefits that make an organization's product or service competitive. 1.6.8

9 Explain how the performance of an employee, a department and an organization is assessed. 1.6.9

10 Describe the impact of globalization on an enterprise or organization. 1.6.10

11 Describe how all business activities of an organization work within the parameters of a budget. 1.6.11

12 Describe classifications of employee benefits, rights, deductions and compensations. 1.6.12

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7 **Entrepreneurship/Entrepreneurs: Analyze the environment in which a business operates and the economic factors and opportunities associated with self-employment.** 1.7

1 Compare and contrast the four types of business ownership (i.e., individual proprietorships, partnerships, corporations, cooperatives). 1.7.1

2 Explain the role of profit as the incentive to entrepreneurs in a market economy. 1.7.2

3 Identify the factors that contribute to the success and failure of entrepreneurial ventures. 1.7.3

4 Assess the roles of nonprofit and for-profit businesses. 1.7.4

5 Develop a business plan. 1.7.5

6 Describe life cycles of an entrepreneurial business and an entrepreneur. 1.7.6

7 Create a list of personal strengths, weaknesses, skills and abilities needed to be successful as an entrepreneur. 1.7.7

8 Explain pathways used to become an entrepreneur. 1.7.8

9 Conduct a self-assessment to determine entrepreneurial potential. 1.7.9

10 Describe techniques for obtaining experience (e.g., apprenticeship, co-operative [co-op] education, work placement, internship, job shadowing) related to an entrepreneurial objective. 1.7.10

11 Identify initial steps in establishing a business (e.g., limited liability company [LLC], tax ID, permits, insurance, licensing). 1.7.11

12 Identify resources available to entrepreneurs (e.g., Small Business Administration, mentors, information resources, educational opportunities). 1.7.12

13 Protect intellectual property and knowledge (e.g., copyright, patent, trademark, trade secrets, processes). 1.7.13

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8 Operations Management: Plan, organize and monitor an organization or department to maximize contribution to organizational goals and objectives. 1.8

1 Forecast future resources and budgetary needs using financial documents (e.g., balance sheet, demand forecasting, financial ratios). 1.8.1

2 Select and organize resources to develop a product or a service. 1.8.2

3 Analyze the performance of organizational activities and reallocate resources to achieve established goals. 1.8.3

4 Identify alternative actions to take when goals are not met (e.g., changing goals, changing strategies, efficiencies). 1.8.4

5 Use inventory and control systems to purchase materials, supplies and equipment (e.g., Last In, First Out [LIFO]; First In, First Out [FIFO]; Just in Time [JIT]; LEAN). 1.8.5

6 Identify the advantages and disadvantages of carrying cost and Just-in-Time (JIT) production systems and the effects of maintaining inventory (e.g., perishable, shrinkage, insurance) on profitability. 1.8.6

7 Collect information and feedback to help assess the organization's strategic planning and policymaking processes. 1.8.7

8 Identify routine activities for maintaining business facilities and equipment. 1.8.8

9 Develop a budget that reflects the strategies and goals of the organization. 1.8.9

10 Analyze how business management and environmental management systems (e.g., health, safety) contribute to continuous improvement and sustainability. 1.8.10

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9 Financial Management: Use financial tools, strategies and systems to develop, monitor and control the use of financial resources to ensure personal and business financial well-being. 1.9

1. Create, analyze and interpret financial documents (e.g., budgets, income statements). 1.9.1
2. Identify tax obligations. 1.9.2
3. Review and summarize savings, investment strategies and purchasing options (e.g., cash, lease, finance, stocks, bonds). 1.9.3
4. Identify credit types and their uses in order to establish credit. 1.9.4
5. Identify ways to avoid or correct debt problems. 1.9.5
6. Explain how credit ratings and the criteria lenders use to evaluate repayment capacity affect access to loans. 1.9.6
7. Review and summarize categories (types) of insurance and identify how insurances can reduce financial risk. 1.9.7
8. Identify income sources and expenditures. 1.9.8
9. Compare and contrast different banking services available through financial institutions. 1.9.9
10. Identify the role of depreciation in tax planning and liability. 1.9.10

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10 Sales and Marketing: Manage pricing, place, promotion, packaging, positioning and public relations to improve quality customer service. 1.10

1. Identify how the roles of sales, advertising and public relations contribute to a company's brand. 1.10.1
2. Determine the customer's needs and identify solutions. 1.10.2
3. Communicate features, benefits and warranties of a product or service to the customer. 1.10.3
4. Identify the company policies and procedures for initiating product and service improvements. 1.10.4
5. Monitor customer expectations and determine product/services satisfaction by using measurement tools. 1.10.5
6. Discuss the importance of correct pricing to support a product's or service's positioning in the marketing mix. 1.10.6
7. Describe the importance and diversity of distribution channels (i.e., direct, indirect) to sell a product. 1.10.7
8. Use promotional techniques to maximize sales revenues (e.g., advertising, sales promotions, publicity, public relations). 1.10.8
9. Describe how product mix (e.g., product line, product items) maximize sales revenues, market, share and profit margin. 1.10.9
10. Demonstrate sales techniques. 1.10.10

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11 Principles of Business Economics: Examine and employ economic principles, concepts and policies to accomplish organizational goals and objectives. 1.11

1. Identify the economic principles that guide geographic location of an industry's facilities (e.g., relative scarcity, price, quantity of products and services). 1.11.1

2 Identify the difference between monetary and nonmonetary incentives and explain how changes in incentives cause changes in behavior. 1.11.2

3 Use economic indicators to identify economic trends and conditions (e.g., inflation, interest rate fluctuations, unemployment rates). 1.11.3

4 Determine how the quality, quantity and pricing of goods and services are affected by domestic and international competition in a market economy. 1.11.4

5 Analyze factors that affect currency and exchange rates. 1.11.5

6 Explain how financial markets and government policies influence interest rates (credit ratings/debt ceiling), trade deficits and unemployment. 1.11.6

7 Describe how economic performance and culture are interdependent. 1.11.7

8 Identify the relationships between economy, society and environment that lead to sustainability. 1.11.8

9 Describe how laws and regulations influence domestic and international trade. 1.11.9

Asset Protection: Learners apply principles of private and corporate security to secure information and property; deter, delay, detect and respond to crimes in the business setting, including theft and fraud; and provide physical security and threat assessment. 2

1 Professional Private and Corporate Security: Describe basic skills and knowledge necessary for the professional private and corporate security officer. 2.1

1 Describe the primary focus of private security. 2.1.1

2 Describe the role, positions and scope of corporate, private, contract and proprietary security and how they differ from law enforcement. 2.1.2

3 Describe the liability of private security officers (e.g., negligence, vicarious). 2.1.3

4 Explain the powers of detainment of a private security officer. 2.1.4

5 Apply the exclusionary rule to private security officers. 2.1.5

6 Describe the purpose of physical security and the function of security officers in creating it. 2.1.6

7 Describe how the approach of private security differs from law enforcement in crime prevention. 2.1.7

8 Describe the private security officer's duty in fire prevention, occupational safety and accident prevention. 2.1.8

9 Describe the role of corporate security in executive protection. 2.1.9

10 Describe the role of corporate security in maintaining workplace safety. 2.1.10

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2 Information and Product Security: Describe the role of corporate security in maintaining corporate computer security, protecting proprietary information and trade secrets and preventing counterfeiting. 2.2

1 Describe hacking and the impact of illegal entry into corporate computer systems and networks. 2.2.1

2 Describe methods used to gain illegal entry into corporate computer systems and networks. 2.2.2

3 Describe how corporate security investigates computer viruses, Trojan horses and phishing e- mails. 2.2.3

4 Describe tools corporate security can use to protect electronic data, e-commerce and websites (e.g., cryptography, firewalls, passwords, random number passwords, intrusion detection systems). 2.2.4

5 Describe proprietary information and trade secrets. 2.2.5

6 Describe corporate espionage. 2.2.6

7 Describe how corporate security protects proprietary information and trade secrets. 2.2.7

8 Investigate the theft of proprietary information and trade secrets. 2.2.8

9 Identify potential consequences of corporate espionage (e.g., civil, criminal prosecution). 2.2.9

10 Describe counterfeit products and product diversion methods used by counterfeiters. 2.2.10

11 Describe how corporate security can prevent or reduce counterfeiting and product diversion. 2.2.11

12 Investigate counterfeiting and product diversion. 2.2.12

13 Identify potential consequences of counterfeiting and product diversion (e.g., civil, criminal prosecution). 2.2.13

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3 Fraud: Prevent and investigate fraud. 2.3

1 Analyze the different types of health care fraud (e.g., false billing/claims, kickbacks, bribery, Qui Tam matters, denial of service, overcharges). 2.3.1

2 Describe the impact of health care fraud and the extent of its impact on the economy. 2.3.2

3 Investigate fraud. 2.3.3

4 Identify potential resolutions for health care fraud (e.g., civil, criminal prosecution). 2.3.4

5 Analyze the different types of insurance fraud (e.g., car, home, padding, false claims, kickbacks, overestimation, agent). 2.3.5

6 Describe the impact of insurance fraud and the extent of its impact on the economy. 2.3.6

7 Describe the role of corporate and private security in investigating insurance fraud. 2.3.7

8 Identify databases and clearinghouses used to assist in fraud investigations. 2.3.8

9 Identify potential resolutions for insurance fraud (e.g., civil, criminal prosecution). 2.3.9

10 Describe the role and use of a private investigator in health care and insurance fraud. 2.3.10

11 Investigate credit card fraud and identity theft. 2.3.11

12 Describe the impact of credit card fraud on business and the economy. 2.3.12

13 Describe the role of corporate security in investigating credit card fraud and identity theft. 2.3.13

14 Describe investigation of credit card fraud and identity theft. 2.3.14

15 Describe methods corporations use to mitigate and prevent credit card fraud and identity theft. 2.3.15

16 Identify potential resolutions for credit card fraud and identity theft (e.g., civil, criminal prosecution). 2.3.16

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4 Retail Loss: Prevention Describe retail loss prevention. 2.4

1 Identify the types of stock loss (e.g., theft, write-offs, markdowns, invoice shortages). 2.4.1

2 Describe the impact of employee theft and customer theft on company profit. 2.4.2

3 Describe proactive techniques to reduce employee and customer theft. 2.4.3

4 Investigate stock loss. 2.4.4

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5 Physical Security and Threat Assessment: Describe techniques used by corporate security to conduct physical security and threat assessment in a global business environment. 2.5

1 Asses types of risk (e.g., political, economic) and sources of risk intelligence. 2.5.1

2 Conduct a security and vulnerability assessment. 2.5.2

3 Describe the role of corporate security in company crisis management plans. 2.5.3

4 Identify the role of corporate security in executive protection (e.g., travel risk assessment and management). 2.5.4

5 Describe the role of corporate security in protection of physical assets, property sites, logistics and transportation. 2.5.5

6 Describe electronic countermeasures and detection techniques used by corporate security. 2.5.6

7 Describe the role of corporate security in gathering information on business prospects, business partners and suppliers. 2.5.7

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6 Securities Compliance Investigations: Describe the role of corporate security in securities compliance investigations. 2.6

1 Describe securities violations and their impact on business. 2.6.1

2 Describe conflict of interest. 2.6.2

3 Describe misrepresentation, overstatement and nondisclosure investigations. 2.6.3

4 Describe hidden ownership, insider and improper trading investigations. 2.6.4

5 Describe the role of corporate security in background, reputation and relationship investigations. 2.6.5

6 Identify the sources of securities compliance regulations and policy. 2.6.6

Corrections: Learners apply principles of incarceration and rehabilitation to process and manage inmates, secure correctional facilities, manage crises and emergencies, respond to mental health and medical issues and secure personal safety. 3

1 The Correctional System: Describe the operation of correctional institutions and the management of inmates. 3.1

1 Describe minimum American Correctional Association (ACA) jail standards in Ohio (e.g., standards for inmate classification, health screening, admission and release). 3.1.1

2 Explain the role of the correctional supervisor/administrator in addressing inmate concerns, maintaining discipline and creating a safe and humane environment. 3.1.2

3 Describe how inmate classification impacts the design of correctional institutions and inmate supervision. 3.1.3

4 Explain the purpose of the Prison Rape Elimination Act (PREA) and use of the National Inmate Survey. 3.1.4

5 Explain the role and use of technology in securing correctional facilities and ensuring the safety of staff and inmates. 3.1.5

2 Incarceration Describe the purpose and operation of correctional programming and post-release programs. 3.2

1 Explain the legal rights of adult and juvenile inmates (e.g., due process rights in case of legal and institutional rules violations). 3.2.1

2 Describe the psychological impact of incarceration on inmates and their families. 3.2.2

3 Describe the purpose of correctional programming, treatment and therapy in the juvenile and adult systems and the staff involved in each (e.g., counselors, case managers, teachers, recreation specialists). 3.2.3

4 Describe in-house and community treatment used in adult and juvenile corrections. 3.2.4

5 Describe the purpose and principles of case management in adult and juvenile corrections. 3.2.5

6 Explain the purpose and principles of unit management in correctional institutions. 3.2.6

7 Describe the role of educational, vocational, mental health, substance abuse and recreational programming in adult and juvenile rehabilitation. 3.2.7

8 Explain the importance and types of visitation for inmates. 3.2.8

9 Describe the types of release programs (e.g., parole, halfway house, rehabilitation centers) and the post-release needs of adult and juvenile offenders. 3.2.9

3 The Corrections Officer: Supervise inmates and secure correctional facilities. 3.3

1 Compare and contrast the legal obligations of corrections officers in supervising adult and juvenile offenders. 3.3.1

2 Conduct preventive patrols. 3.3.2

3 Identify the types of inmate counts. 3.3.3

4 Discipline inmates for infractions. 3.3.4

5 Identify institutional rule violations and make appropriate referrals. 3.3.5

6 Identify prison gang membership and manage gangs. 3.3.6

7 Describe the psychological impact of corrections on officer well-being and behavior (e.g., officer misconduct). 3.3.7

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4 Emergency Situations: Manage inmates in emergency situations. 3.4

1 Identify materials that are commonly used as fuel for arson in correctional facilities. 3.4.1

2 Describe common accidental fires in correctional facilities. 3.4.2

3 Identify types of riots and inmate behavior that may predict a riot. 3.4.3

4 Describe typical contents of a correctional facility master riot plan. 3.4.4

5 Identify techniques to maintain personal safety if taken hostage. 3.4.5

6 Maintain security procedures to prevent riots, disorders and escape attempts. 3.4.6

7 Describe the criminal and civil liability of corrections officers. 3.4.7

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5 Searches: Conduct searches of inmates, cells and living areas. 3.5

1 Describe the purpose for conducting searches of cells, living areas, inmates and visitors. 3.5.1

2 Identify contraband and potential weapons and contraband. 3.5.2

3 Describe when and why an inmate, cell, or living area should be searched. 3.5.3

4 Describe the types of body searches. 3.5.4

5 Describe the legalities of conducting a strip search and a body cavity search. 3.5.5

6 Search an inmate, cell and living area. 3.5.6

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6 Booking and Release: Admit, identify, classify and release a prisoner in custody. 3.6

1 Book a prisoner into custody. 3.6.1

2 Classify prisoners based on security risk. 3.6.2

3 Fingerprint, photograph and collect deoxyribonucleic acid (DNA) from a prisoner. 3.6.3

4 Identify the items required by law to be given to an inmate who will be in custody for more than eight hours. 3.6.4

5 Collaborate with medical staff to conduct a preliminary health screening. 3.6.5

6 Summarize the purpose for placing inmates in administrative segregation. 3.6.6

7 Identify and describe the types of bonds that can secure release from custody. 3.6.7

7 **Medical Issues and Security: Manage inmates with medical issues and emergencies.** 3.7

1. Describe the impact of adult and juvenile inmate medical issues (e.g., chronic illness, pregnancy) on institutional security. 3.7.1
2. Compare and contrast the role of the correctional facility physician and nurse with the role of the corrections officer. 3.7.2
3. Describe the legal obligations of the corrections officer in providing medical treatment and administering medication. 3.7.3
4. Respond to medical emergencies and provide basic first aid while using universal precautions and maintaining security. 3.7.4
5. Maintain sanitary standards to prevent the spread of disease and illness in the correctional setting. 3.7.5

8 **Suicide: Identify and manage potentially suicidal inmates.** 3.8

1. Analyze times and situations when a suicide attempt is more likely to occur. 3.8.1
2. Describe factors in the correctional facility that may increase the risk of suicide. 3.8.2
3. Identify the physical and emotional warning signs of depression and intervene to prevent suicide. 3.8.3
4. Identify the most common means of suicide in the correctional setting. 3.8.4
5. Describe the legal obligations of the corrections officer in supervising inmates with increased risk of suicide. 3.8.5
6. Identify inmates exhibiting depressed or suicidal behavior and refer to the mental health staff. 3.8.6
7. Report, investigate and document inmate suicide and suicide attempts. 3.8.7
8. Conduct a Critical Incident Stress Debriefing (CISD) for staff and inmates after a suicide event. 3.8.8

9 **Mental Health: Identify and manage inmates with mental health crises.** 3.9

1. Describe crisis and crisis intervention. 3.9.1
2. Compare and contrast the role of the facility crisis intervention team and the role of the corrections officer. 3.9.2
3. Identify symptoms of mental health crises (e.g., episodes of anger, violence, depression, unusual behavior). 3.9.3
4. Describe the psychological effects of incarceration on inmates. 3.9.4
5. Describe how the risk of mental health crisis differs during the beginning, middle and end phases of incarceration. 3.9.5
6. Identify inmates with greater risk of mental health crises. 3.9.6
7. De-escalate crisis situations and intervene per institutional policy. 3.9.7

8 Identify inmates with symptoms of mental health crises and refer to the mental health staff. 3.9.8

Emergency Medical: Learners apply principles of medical care, anatomy and physiology to provide medical treatment in the field ranging from basic first aid to emergency procedures for traumatic, life-threatening injuries. Knowledge and skills may be applied in the fields of law enforcement, private and corporate security, corrections and Emergency Medical Technician-B (EMT-B). 4

1 **Basic First Aid Demonstrate skills in basic first aid, cardiopulmonary resuscitation (CPR) and use of Automated External Defibrillation (AED).** 4.1

1 Identify the duties of a public safety official to provide emergency medical care. 4.1.1

2 Obtain certification in basic first aid. 4.1.2

3 Obtain certification in CPR/AED. 4.1.3

2 **Preparatory: Apply fundamental knowledge of the Emergency Medical Services (EMS) system, safety/well- being of the Emergency Medical Technician (EMT) and medical/legal and ethical issues to the provision of emergency care.** 4.2

1 Apply simple depth and foundational breadth of knowledge on EMS systems, including history of EMS, roles/responsibilities, professionalism of EMS personnel, quality improvement and patient safety. 4.2.1

2 Apply simple depth and breadth of knowledge on data collection and research using evidence- based decision-making skills. 4.2.2

3 Apply fundamental depth, foundational breadth of knowledge on workforce safety and wellness, including wellness principles, standard safety precautions, personal protective equipment, stress management, dealing with death and dying, prevention of work-related injuries, lifting and moving patients and disease transmission. 4.2.3

4 Apply fundamental depth, foundational breadth of knowledge of documentation on the principles of medical documentation and report writing. 4.2.4

5 Apply simple depth, simple breadth of knowledge on EMS communication systems, call for resources, transfer care of the patient, interaction within the team structure, communication with other health care professionals and team communication and dynamics. 4.2.5

6 Apply simple depth, simple breadth of knowledge on the principles of communicating with patients in a manner that achieves a positive relationship, including adjusting communication strategies for age, stage of development, patients with special needs and differing cultures. 4.2.6

7 Apply fundamental depth, foundational breadth of knowledge on interviewing techniques, verbal defusing strategies and family presence issues. 4.2.7

8 Apply fundamental depth, foundational breadth of knowledge on the consent/refusal of care, expressed versus implied consent, advance directives, tort and criminal actions, evidence preservation, statutory responsibilities, mandatory reporting and ethical principles/moral obligations. 4.2.8

3 **Anatomy and Physiology: Define and describe knowledge and skills in anatomy and physiology for the Emergency Medical Technician (EMT).** 4.3

1 Apply fundamental knowledge of the anatomy and function of all human systems to the practice of Emergency Medical Services (EMS). 4.3.1

4 **Medical Terminology: Define and describe knowledge and skills in medical terminology for the Emergency Medical Technician (EMT).** 4.4

1 Use foundational anatomical and medical terms and abbreviations in written and oral communication with colleagues and other health care professionals. 4.4.1

5 **Pathophysiology: Define and describe knowledge and skills in pathophysiology for the Emergency Medical Technician (EMT).** 4.5

1 Apply fundamental knowledge of the pathophysiology of respiration and perfusion to patient assessment and management. 4.5.1

6 **Life Span Development: Define and describe knowledge and skills in life span development for the Emergency Medical Technician (EMT).** 4.6

1 Apply fundamental knowledge of life span development to patient assessment and management. 4.6.1

7 **Public Health: Define and describe knowledge and skills in public health for the Emergency Medical Technician (EMT).** 4.7

1 Use simple knowledge of the principles of illness and injury prevention in emergency care. 4.7.1

8 **Pharmacology: Apply fundamental knowledge of the medications that the Emergency Medical Technician (EMT) may assist/administer to a patient during an emergency.** 4.8

1 Apply simple depth, simple breadth of knowledge on the principles of pharmacology, including medication safety and the kinds of medications used during an emergency. 4.8.1

2 Apply fundamental depth, foundational breadth of knowledge on medication administration within the scope of practice of the EMT on how to assist/administer medications to a patient. 4.8.2

3 Apply fundamental depth, simple breadth of knowledge on emergency medications within the scope of practice of the EMT, including names, actions, indications, contraindications, complications, routes of administration, side effects, interactions and dosages for the medications administered. 4.8.3

9 **Airway: Apply knowledge (fundamental depth, foundational breadth) of general anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation and respiration for patients of all ages.** 4.9

1. Apply fundamental depth, foundational breadth of knowledge on airway management within the scope of practice of the Emergency Medical Technician (EMT), including airway anatomy, airway assessment and techniques of assuring a patent airway. 4.9.1
2. Apply fundamental depth, foundational breadth of knowledge on respiration, including the anatomy of the respiratory system, physiology and pathophysiology of respiration, pulmonary ventilation, oxygenation, respiration (external, internal, cellular), assessment and management of adequate and inadequate respiration and supplemental oxygen therapy. 4.9.2
3. Apply fundamental depth, foundational breadth of knowledge on the assessment and management of adequate and inadequate ventilation, including artificial ventilation, minute ventilation, alveolar ventilation and the effect of artificial ventilation on cardiac output. 4.9.3

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10. **Assessment: Apply scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history and reassessment) to guide emergency management.** 4.10
    1. Apply complex depth, comprehensive breath of knowledge on scene safety. 4.10.1
    2. Apply fundamental depth, foundational breadth of knowledge on scene management, including the impact of the environment on patient care, addressing hazards, violence, the need for additional or specialized resources and standard precautions. 4.10.2
    3. Apply fundamental depth, foundational breadth of knowledge on scene size-up, including scene management and multiple patient situations. 4.10.3
    4. Apply fundamental depth, simple breadth of knowledge on the primary assessment for all patient situations, including initial general impression, level of consciousness, ABCs (airway, breathing, circulation), identifying life threats, assessment of vital functions and integration of treatment/procedures needed to preserve life. 4.10.4
    5. Apply fundamental depth, foundational breadth of knowledge on history taking, including investigation of the chief complaint, mechanism of injury/nature of illness, past medical history, associated signs and symptoms and pertinent negatives. 4.10.5
    6. Apply simple depth, simple breadth of knowledge on performing a secondary assessment, including a rapid full-body scan, focused assessment of pain and assessment of vital signs. 4.10.6
    7. Apply fundamental depth, foundational breadth of knowledge on secondary assessment techniques of physical examination, including respiratory system (presence of breath sounds), cardiovascular system, neurological system, musculoskeletal system and all anatomical regions. 4.10.7
    8. Use monitoring devices, within the scope of practice of the Emergency Medical Technician (EMT), including (but not limited to) a 12-lead electrocardiogram (ECG) setup and application for electronic transmission and end tidal carbon dioxide monitoring and detection. 4.10.8

9 Apply fundamental depth, foundational breadth of knowledge on how and when to perform a reassessment for all patient situations. 4.10.9

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11 Medicine: Apply fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient. 4.11

1 Apply simple depth, foundational breadth of knowledge on pathophysiology, assessment and management of a medical complaint (medical overview) to include transport mode and destination decisions. 4.11.1

2 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of neurology, including stroke/transient ischemic attack, seizure, status epilepticus and headache. 4.11.2

3 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of abdominal and gastrointestinal disorders, including acute and chronic gastrointestinal hemorrhage. 4.11.3

4 Apply simple depth, simple breadth of knowledge of peritonitis and ulcerative diseases. 4.11.4

5 Apply simple depth, simple breadth of knowledge in the recognition and management of shock and difficulty breathing related to anaphylactic reactions. 4.11.5

6 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of hypersensitivity disorders and/or emergencies involving anaphylactic reactions. 4.11.6

7 Apply simple depth, simple breadth of knowledge on the assessment and management of a patient who may have an infectious disease and how to decontaminate the ambulance and equipment after treating a patient. 4.11.7

8 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of endocrine disorders, including acute diabetic emergencies. 4.11.8

9 Apply simple depth, simple breadth of knowledge on the basic principles of the mental health system. 4.11.9

10 Apply fundamental depth, foundational breadth of knowledge on the assessment and management of psychiatric conditions, including acute psychosis, suicidal/risk and agitated delirium. 4.11.10

11 Apply simple depth, simple breadth of knowledge in the anatomy, signs, symptoms and management of chest pain and cardiac arrest. 4.11.11

12 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of cardiovascular conditions, including acute coronary syndrome (angina pectoris, myocardial infarction), aortic aneurysm/dissection and thromboembolism. 4.11.12

13 Apply simple depth, simple breadth of knowledge on heart failure and hypertensive emergencies. 4.11.13

14 Apply simple depth, simple breadth of knowledge in the recognition and management of carbon monoxide poisoning, nerve agent poisoning and how and when to contact a poison control center. 4.11.14

15 Apply fundamental depth, foundational breadth of knowledge on anatomy, physiology, pathophysiology, assessment and management of toxicology conditions, including inhaled poisons, ingested poisons, injected poisons, absorbed poisons and alcohol intoxication and withdrawal. 4.11.15

16 Apply simple depth, simple breadth of knowledge on the anatomy, signs, symptoms and management of respiratory emergencies, including those that affect the upper airway and lower airway. 4.11.16

17 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of respiratory conditions, including epiglottitis, spontaneous pneumothorax, pulmonary edema, asthma, chronic obstructive pulmonary disease, environmental/industrial exposure and toxic gas. 4.11.17

18 Apply simple depth, simple breadth of knowledge on pertussis, cystic fibrosis, pulmonary embolism, pneumonia and viral respiratory infections. 4.11.18

19 Apply simple depth, simple breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of hematology conditions, including sickle cell crisis and clotting disorders. 4.11.19

20 Apply simple depth, simple breadth of knowledge on blood pressure assessment in hemodialysis patients. 4.11.20

21 Apply simple depth, simple breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of genitourinary/renal conditions, including complications related to renal dialysis and urinary catheter management (not insertion) and kidney stones. 4.11.21

22 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, assessment findings and management of gynecology conditions, including vaginal bleeding and sexual assault (to include appropriate emotional support). 4.11.22

23 Apply simple depth, simple breadth of knowledge on gynecology infections. 4.11.23

24 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of non-traumatic fractures. 4.11.24

25 Apply simple depth, simple breadth of knowledge on the recognition and management of nose bleeds. 4.11.25

26 Apply fundamental depth, foundational breadth of knowledge on the anatomy, physiology, pathophysiology, assessment and management of diseases of the eyes, ears, nose and throat. 4.11.26

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12 **Shock and Resuscitation: Define and describe knowledge and skills in shock and resuscitation for the Emergency Medical Technician (EMT).** 4.12

1 Use assessment information to recognize shock, respiratory failure or arrest and cardiac arrest based on assessment findings and manage the emergency while awaiting additional emergency response. 4.12.1

2 Apply fundamental knowledge of the causes, pathophysiology and management of shock, respiratory failure or arrest, cardiac failure or arrest and post-resuscitation management. 4.12.2

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13 Trauma: Apply fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely injured patient. 4.13

1 Apply fundamental depth, foundational breadth of knowledge on trauma pathophysiology, assessment and management of the trauma patient, including trauma scoring, rapid transport, destination issues and transport mode. 4.13.1

2 Apply fundamental depth, foundational breadth of knowledge on the pathophysiology, assessment and management of bleeding. 4.13.2

3 Apply simple depth, simple breadth of knowledge on the recognition and management of chest trauma, including blunt versus penetrating mechanisms, open chest wound, impaled object and pneumothorax (open and simple). 4.13.3

4 Apply fundamental depth, simple breadth of knowledge on chest trauma pathophysiology, assessment and management, including blunt versus penetrating mechanisms, hemothorax, pneumothorax (open, simple, tension), cardiac tamponade, rib fractures, flail chest and commotio cordis. 4.13.4

5 Apply simple depth, simple breadth of knowledge in the recognition and management of abdominal and genitourinary trauma, including blunt versus penetrating mechanisms, evisceration and impaled object. 4.13.5

6 Apply fundamental depth, simple breadth of knowledge on the pathophysiology, assessment and management of abdominal and genitourinary trauma, including solid and hollow organ injuries, blunt versus penetrating mechanisms, evisceration, injuries to the external genitalia, vaginal bleeding due to trauma and sexual assault. 4.13.6

7 Apply simple depth, simple breadth of knowledge in the recognition and management of orthopedic trauma, including open fractures, closed fractures, dislocations and amputations. 4.13.7

8 Apply fundamental depth, foundational breadth of knowledge in the pathophysiology, assessment and management of orthopedic trauma, including upper and lower extremity orthopedic trauma, open fractures, closed fractures, dislocations, sprains/strains, pelvic fractures and amputations/replantation. 4.13.8

9 Apply simple depth, simple breadth of knowledge on the recognition and management of soft tissue trauma, including wounds, burns (electrical, chemical, thermal) and chemicals in the eye and on the skin. 4.13.9

10 Apply fundamental depth, foundational breadth of knowledge on the pathophysiology, assessment and management of soft tissue trauma, including wounds (avulsions, bite wounds, lacerations, puncture wounds, incisions) and burns (electrical, chemical, thermal, radiation). 4.13.10

11 Apply simple depth, simple breadth of knowledge on soft tissue trauma due to crush syndrome. 4.13.11

12 Apply simple depth, simple breadth of knowledge on the recognition and management of head, facial, neck and spine trauma, including life threats, head and spine trauma and mechanism of injury. 4.13.12

13 Apply fundamental depth, foundational breadth of knowledge on the pathophysiology, assessment and management of head, facial, neck and spine trauma, including penetrating neck trauma, laryngotracheal injuries and spine trauma. 4.13.13

14 Apply simple depth, simple breadth of knowledge on head, facial, neck and spine trauma, including facial fractures, skull fractures, foreign bodies in the eyes and dental trauma. 4.13.14

15 Apply fundamental depth, foundational breadth of knowledge on the pathophysiology, assessment and management of nervous system trauma, including traumatic brain injury and spinal cord injury. 4.13.15

16 Apply simple depth, simple breadth of knowledge in the recognition and management of trauma in the pregnant patient, pediatric patient and geriatric patient. 4.13.16

17 Apply fundamental depth, foundational breadth of knowledge in the pathophysiology, assessment and management of trauma in the pregnant patient, pediatric patient, geriatric patient and the cognitively impaired patient. 4.13.17

18 Apply simple depth, simple breadth of knowledge in the recognition and management of environmental emergencies, including water and ice injury and temperature-related illness. 4.13.18

19 Apply fundamental depth, foundational breadth of knowledge in the pathophysiology, assessment and management of environmental emergencies, including near drowning, temperature-related illness, bite and envenomation, dysbarism (high-altitude, diving injuries), electrical injury and radiation exposure. 4.13.19

20 Apply simple depth, simple breadth of knowledge in the recognition and management of multisystem trauma. 4.13.20

21 Apply fundamental depth, foundational breadth of knowledge in the pathophysiology, assessment and management of multisystem trauma and blast injuries. 4.13.21

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14 Special Patient Populations: Apply a fundamental knowledge of growth, development and aging and assessment findings to provide basic emergency care and transportation for a patient with special needs. 4.14

1 Apply simple depth, simple breadth of knowledge in the recognition and management of a normal delivery, vaginal bleeding in the pregnant patient, assessment of the pregnant patient, management of normal delivery, recognition of abnormal delivery, placenta previa and spontaneous abortion/miscarriage. 4.14.1

2 Apply fundamental depth, foundational breadth of knowledge on obstetrics, including the anatomy and physiology of normal pregnancy, pathophysiology of complications of pregnancy, assessment of the pregnant patient, management of normal delivery, abnormal delivery (nuchal cord, prolapsed cord, breech delivery), third trimester bleeding (placenta previa, abruptio placenta), spontaneous abortion/miscarriage, ectopic pregnancy and preeclampsia/eclampsia. 4.14.2

3 Apply simple depth, simple breadth of knowledge in newborn care and neonatal resuscitation. 4.14.3

4 Apply fundamental depth, foundational breadth of knowledge on neonatal care assessment and management, including newborn and neonatal resuscitation. 4.14.4

5 Apply simple depth, simple breadth of knowledge on age-related assessment findings and age- related assessment and treatment modifications for pediatric-specific major diseases and/or emergencies, including upper airway obstruction, lower airway reactive disease, respiratory distress/failure/arrest, shock, seizures and Sudden Infant Death Syndrome. 4.14.5

6 Apply fundamental depth, foundational breadth of knowledge on age-related assessment findings and age-related and developmental-stage-related assessment and treatment modifications for pediatric-specific major diseases and/or emergencies, including upper airway obstruction, lower airway reactive disease, respiratory distress/failure/arrest, shock, seizures, Sudden Infant Death Syndrome and gastrointestinal disease. 4.14.6

7 Apply simple depth, simple breadth of knowledge on the impact of age-related changes on assessment and care in geriatrics. 4.14.7

8 Apply fundamental depth, foundational breadth of knowledge on changes associated with aging, psychosocial aspects of aging and age-related assessment and treatment modifications for the major or common geriatric diseases and/or emergencies, including cardiovascular diseases, respiratory diseases, neurological diseases, endocrine diseases, Alzheimer's and dementia. 4.14.8

9 Apply simple depth, simple breadth of knowledge on patients with special challenges on recognizing and reporting abuse and neglect. 4.14.9

10 Apply simple depth, simple breadth of knowledge on the healthcare implications of patients with special challenges, including abuse, neglect, homelessness, poverty, bariatrics, technology dependent, hospice/ terminally ill, tracheostomy care/dysfunction, homecare, sensory deficit/loss and developmental disability. 4.14.10

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15 **Emergency Medical Services (EMS) Operations: Apply knowledge of operational roles and responsibilities to ensure patient, public and personnel safety.** 4.15

1 Apply simple depth, simple breadth of knowledge on the principles of safely operating a ground ambulance, including the risks and responsibilities of emergency response. 4.15.1

2 Apply simple depth, simple breadth of knowledge on the principles of safely operating a ground ambulance, including the risks and responsibilities of transport. 4.15.2

3 Apply fundamental depth, foundational breadth of knowledge on incident management, including establishing and working within the incident management system. 4.15.3

4 Apply simple depth, simple breadth of knowledge on multiple causality incidents, including triage principles and resource management. 4.15.4

5 Apply simple depth, foundational breadth of knowledge on multiple casualty incidents, including triage, performing, retriage, destination decisions and posttraumatic and cumulative stress. 4.15.5

6 Apply simple depth, simple breadth of knowledge on safe air medical operations and criteria for utilizing air medical response. 4.15.6

7 Apply simple depth, simple breadth of knowledge on safe vehicle extrication and use of simple hand tools. 4.15.7

8 Apply simple depth, simple breadth of knowledge on the risks and responsibilities of operating in a cold zone at a hazardous material or other special incident. 4.15.8

9 Apply simple depth, simple breadth of knowledge on the risks and responsibilities of operating on the scene of a natural or man-made disaster. 4.15.9

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16 Clinical Behavior/Judgment: Practice skills in the clinical and field experience requirements of the Emergency Medical Technician (EMT) curriculum. 4.16

1 Perform a basic history and physical examination to identify acute complaints and monitor changes and identify the actual and potential complaints of emergency patients. 4.16.1

2 Communicate in a culturally sensitive manner. 4.16.2

3 Safely and effectively perform psychomotor skills within the National Emergency Medical Services (EMS) Scope of Practice Model and the Ohio Scope of Practice at the EMT level for airway and breathing (i.e., orotracheal intubation of pulseless and apneic patients with extraglottic or multilumen device, endotracheal suctioning through a stoma, positive pressure ventilation, manually triggered ventilators, automatic transport ventilators, supplemental oxygen therapy, constant positive airway pressure [CPAP] administration and management, end-tidal carbon dioxide [ETCO2] monitoring and detection, humidifiers, manually triggered ventilators, automatic transport ventilators, partial rebreather mask, venturi mask), assessment (i.e., blood glucose monitor and automatic blood pressure [B/P]), pharmacologic interventions (i.e., assist patients in taking their own prescribed medications, administration of over-the-counter [OTC] medications with medical oversight, oral glucose administration, aspirin for chest pain, 12-lead electrocardiogram [EKG] setup, application for electronic transmission), medical/cardiac care (i.e., mechanical cardiopulmonary resuscitation [CPR], assisted complicated delivery) and trauma care (i.e., spinal immobilization, cervical collars, seated, longboard, rapid extrication, splinting, extremity, traction, pneumatic anti-shock garment [PASG], helmet removal, mechanical patient restraint, tourniquet). 4.16.3

4 Demonstrate professional behavior, including (but not limited to) integrity, empathy, self- motivation, appearance/personal hygiene, self-confidence, communications, time management, teamwork/diplomacy, respect, patient advocacy and careful delivery of service. 4.16.4

5 Initiate basic interventions based on assessment findings intended to mitigate the emergency and provide limited symptom relief while providing access to definitive care. 4.16.5

6 Report and document assessment data and interventions. 4.16.6

7 Perform a patient assessment and provide prehospital emergency care and transportation for patient complaints (i.e., abdominal pain, abuse/neglect, altered mental status/decreased level of consciousness, anxiety, apnea, ataxia, back pain, behavioral emergency, bleeding, cardiac arrest, cardiac rhythm disturbances, chest pain, constipation, cyanosis, dehydration, diarrhea, dizziness/vertigo, dysphasia, dyspnea, edema, eye pain, fatigue, fever, gastrointestinal [GI] bleeding, headache, hematuria, hemoptysis, hypertension, hypotension, joint pain/swelling, multiple trauma, nausea/vomiting, pain, paralysis, pediatric crying/fussiness, poisoning, rash, rectal pain, shock, sore throat, stridor/drooling, syncope, urinary retention, visual disturbances, weakness, wheezing). 4.16.7

8 Serve as an entry-level EMS team member on an emergency call with more experienced personnel in the lead role and serve as a team leader following additional training and/or experience. 4.16.8

9 Ensure the safety of the rescuer and others during an emergency. 4.16.9

10 Complete all clinical and field requirements in accordance with Ohio Administrative Code (OAC) 4765-15-05, EMT Curriculum, prior to receiving a certificate of completion. 4.16.10

11 Complete at least ten hours of clinical and/or field experience. 4.16.11

12 Observe emergency department operations for a period of time sufficient to gain an appreciation for the continuum of care. 4.16.12

13 Perform ten patient assessments in an emergency department, ambulance, clinic, nursing home, doctor's office, or on standardized patients if clinical settings are not available. 4.16.13

14 Participate in and document patient contacts in a field experience approved by the medical director and program director. 4.16.14

Fire Science: Learners apply principles of firefighting to prevent and suppress fires. Knowledge of the science of combustion; fire service structure and organization; life safety initiatives; communication; and the use of fire apparatus,

1 **Organization and Mission: Explain the organization, mission statement, policies and procedures of a fire department and explain the role of a Firefighter 1 within the organization. Communicate the value of fire and life safety initiatives to reduce line of duty deaths and injuries along with the internal programs, external agencies and documents addressing the well-being of the Firefighter 1. Explain the organization, mission statement, policies and procedures of a fire department and explain the role of a Firefighter 1 within the organization. ([General Knowledge Requirements] National Fire Protection Association [NFPA] 1001 Ch. 5.1.1)** 5.1

tools and appliances will be applied in fire suppression, ventilation, hazardous materials containment and rescue. 5

1 Discuss the critical aspects of the fire department's member assistance program, the critical aspects of NFPA 1500, Fire Department Occupational Safety and Health Program. 5.1.1

2 State the mission of the fire service. 5.1.2

3 Describe the organization of the fire department. 5.1.3

4 Discuss the role of the Firefighter 1 within the organization. 5.1.4

5 Explain the fire department's standard operating procedures, rules and regulations as they apply to firefighters. 5.1.5

6 Discuss the role of other agencies as they relate to the department. 5.1.6

7 Discuss the value of fire and life safety initiatives to support the fire department's mission and to reduce the line of duty deaths. 5.1.7

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2 **Personal Emergency Equipment: Demonstrate how to don and doff personal protective clothing, prepare clothing for reuse and locate information using department documents along with standards and code materials. ([General Skills Requirement] National Fire Protection Association [NFPA] 1001 Ch. 5.1.2)** 5.2

1 Perform the ability to don personal protective clothing within one minute. 5.2.1

2 Perform the ability to doff personal protective clothing and prepare for reuse. 5.2.2

3 Locate and clarify information in department documents, standards and code materials. 5.2.3

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3 **Communication: Explain the communication process and list different ways of communicating and initiating a response. Demonstrate the use of basic fire department communication equipment to convey emergency and nonemergency information with persons inside and outside of the department. ([Fire Department Communications] National Fire Protection Association [NFPA] 1001 Ch. 5.2-5.2.4)** 5.3

1 Explain the procedures for reporting emergency, departmental standard operating procedures (SOPs) for taking and receiving alarms, radio codes or procedures and information needs to a dispatcher. 5.3.1

2 Demonstrate the ability to operate fire department communications equipment, relay information and record information. 5.3.2

3 Discuss the fire department procedures for answering nonemergency telephone calls. 5.3.3

4 Demonstrate the ability to operate fire station telephone and intercom equipment. 5.3.4

5 Discuss the departmental radio procedures and etiquette for routine traffic, emergency traffic and emergency evacuation signals. 5.3.5

6 Perform the ability to operate radio equipment and discriminate between routine and emergency traffic. 5.3.6

7 Discuss personnel accountability systems. 5.3.7

8 Discuss emergency communications procedures and emergency evacuation methods. 5.3.8

9 Demonstrate an emergency call for assistance and use alternative methods for requesting assistance. 5.3.9

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4 **Self-Contained Breathing Apparatus (SCBA): Explain knowledge of and demonstrate the ability to wear, operate and monitor air supply of a SCBA; use emergency techniques, procedures and built-in functions, including warning devices, in case of equipment malfunctions or activation of low air alarm; exit a structure prior to air cylinder depletion; wear protective equipment while mounting, riding and dismounting a fire apparatus; and establish and work safely in designated work areas. ([Fire Ground Operations– SCBA] National Fire Protection Association [NFPA] 1001 Ch. 5.3–5.3.3)** 5.4

1 List and discuss the components that make up the SCBA assembly, including low air alarms. 5.4.1

2 Convey breathing techniques while wearing SCBA. 5.4.2

3 Describe the indicators for and discuss possible emergency procedures while wearing SCBA. 5.4.3

4 List the physical requirements for wearing SCBA. 5.4.4

5 Exit a restricted passage while wearing full personal protective equipment (PPE) and breathing air from a SCBA unit. 5.4.5

6 Demonstrate the ability to control breathing while breathing air from a SCBA unit. 5.4.6

7 Replace a depleted air cylinder with a full air cylinder on a SCBA unit. 5.4.7

8 Demonstrate emergency procedures taken in the event of a SCBA failure or air cylinder depletion. 5.4.8

9 Don all personal protective clothing and equipment correctly within two minutes, with breathing air and Personal Alert Safety System (PASS) device activated. 5.4.9

10 Discuss the mounting and dismounting procedures for riding a fire and Emergency Medical Services (EMS) apparatus. 5.4.10

11 Describe the hazards and ways to avoid hazards that cause accidents associated with riding a fire and EMS apparatus. 5.4.11

12 List the practices that are prohibited while riding a fire and EMS apparatus. 5.4.12

13 List the common types of PPE used while riding on a fire and EMS apparatus. 5.4.13

14 Demonstrate the proper use for each piece of safety equipment provided, including wearing seat belts. 5.4.14

15 Explain the potential hazards involved in operating at emergency scenes, including traffic control, utilities and environmental conditions. 5.4.15

16 Describe the proper procedures for dismounting a fire and EMS apparatus in traffic and at other emergency and nonemergency scenes. 5.4.16

17 Explain the procedures and use of different types of protective equipment available to ensure the user's safety, while operating at emergency scenes and work zone designations. 5.4.17

18 Demonstrate how to safely dismount an apparatus, don appropriate safety equipment for the given situation and deploy traffic and scene control devices to protect the work area. 5.4.18

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5 Entry Techniques: Identify common methods and perform forcible entry techniques through various types of doors, windows, walls and the locking mechanisms using powered and non-powered equipment and tools. ([Fire Ground Operations–Forcible Entry] National Fire Protection Association [NFPA] 1001 Ch.5.3.4) 5.5

1 List the basic construction of typical doors, windows and walls found within the community or service area. 5.5.1

2 Explain the operation of a variety of doors, windows and locks used within the community or service area. 5.5.2

3 Convey dangers associated when forcing entry through doors, windows, walls and locks. 5.5.3

4 Demonstrate how to safely carry, operate and use common forcible entry tools to force entry through doors, windows, walls and locks. 5.5.

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6 Safe Egress: Demonstrate as a team how to safely exit a hazardous environment, with zero visibility conditions, into a safe environment, without depleting your air supply and while maintaining team integrity. ([Fire Ground Operations–Exit Hazardous Area] National Fire Protection Association [NFPA] 1001 Ch.5.3.5) 5.6

1 Define emergency radio traffic communication procedures and emergency evacuation signals/methods. 5.6.1

2 Describe personnel accountability systems, emergency escape and what constitutes a safe haven. 5.6.2

3 Describe the emergency procedures for loss of air supply. 5.6.3

4 List the elements that create and/or indicate a hazardous environment. 5.6.4

5 Conduct a search, as a team member, in a vision-obscured condition, using all available senses to evaluate for hazards. 5.6.5

6 Exit a hazardous area by searching for and finding a guide line then following the line to a safe haven. 5.6.6

7 Demonstrate methods to conserve self-contained breathing apparatus (SCBA) air. 5.6.7

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7 Ladders: Explain the knowledge needed and demonstrate the skills required to select, carry, place, raise, extend, climb and work off of ladders. ([Fire Ground Operations–Ladders] National Fire Protection Association [NFPA] 1001 Ch.5.3.6) 5.7

1 List the parts of an extension ladder. 5.7.1

2 Explain the hazards associated with setting up ground ladders. 5.7.2

3 Explain what constitutes a stable foundation for ladder placement. 5.7.3

4 Describe the different climbing angles needed for safe completion of various tasks along with extending fly sections, assuring the fly section is locked. 5.7.4

5 Explain what constitutes a reliable structural component for tip placement. 5.7.5

6 Demonstrate carries and raises for single and extension ladders along with extending fly sections, assuring the fly section is locked. 5.7.6

7 Establish with certainty that a wall or roof will support a ladder and that the ladder is at the correct climbing angle for the given task. 5.7.7

8 Select the correct length extension ladder for a given height and properly place the ladder addressing and avoiding safety hazards. 5.7.8

9 Climb and leg lock an extension ladder. 5.7.9

10 Climb and leg lock an extension ladder and work with a tool. 5.7.10

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8 **Vehicle Fires: Explain knowledge of and demonstrate the performance required to identify multiple hazards associated with vehicle fires and use the correct techniques for controlling and extinguishing a vehicle fire. Force entry into all locked compartments. ([Fire Ground Operations–Vehicle Fires] National Fire Protection Association [NFPA] 1001 Ch. 5.3.7)** 5.8

1 Convey the principles of fire streams as they relate to fighting vehicle fires. 5.8.1

2 List the dangerous conditions created during a vehicle fire, along with the precautions taken when advancing hose lines towards these types of fires. 5.8.2

3 Describe the desired observable results of a properly applied fire stream to a vehicle fire. 5.8.3

4 Identify types of alternative fueled vehicles and list the hazards associated with each vehicle type. 5.8.4

5 Disclose the types of injuries associated with extinguishing vehicle fires along with procedures for avoiding these injuries. 5.8.5

6 Describe how to gain entry into locked trunks, engine compartments and passenger compartments. 5.8.6

7 List procedures for conducting a safe and effective overhaul after extinguishing a vehicle fire. 5.8.7

8 Perform the proper procedures while advancing a 1½ inch or larger diameter attack line, operating the nozzle patterns for maximum effectiveness and extinguishing the vehicle fire while maintaining flash fire protection. 5.8.8

9 Access all locked and unlocked compartments to expose and extinguish hidden fires. 5.8.9

10 Identify a vehicle's fuel type and use proper procedures for controlling fuel leaks. 5.8.10

11 Identify dangerous conditions created during a vehicle fire. 5.8.11

9 **Inspecting Materials Storage: Explain the methods and demonstrate the procedures for identifying hazards of stacked or stored materials on fire, controlling and extinguishing fires involving Class A stacked/stored materials using hand lines and master stream devices, overhauling stacked and stored materials addressing all safety concerns, locating fire origin and cause and preserving evidence. ([Fire Ground Operations–Stacked Class A Fires] National Fire Protection Association [NFPA] 1001 Ch. 5.3.8)** 5.9

1 Discuss types of attack lines and water streams appropriate for attacking stacked piled materials and outdoor fires. 5.9.1

2 Describe the dangers of a collapse associated with stacked and piled materials. 5.9.2

3 Explain how each extinguishing agent should perform to extinguish different materials and material configurations. 5.9.3

4 List methods, along with the tools required, used to break up various types of materials and the difficulties related to complete extinguishment. 5.9.4

5 Describe the methods used for water application for exposure protection and fire suppression. 5.9.5

6 List the hazards (e.g., collapse, toxic fumes, hazardous materials) that may be found during fires in buildings, storage facilities and containers. 5.9.6

7 Disclose obvious signs of fire origin and cause and list the techniques for preserving fire cause- related evidence. 5.9.7

8 Perform the ability to recognize inherent hazards related to the materials configuration and operate hand lines and master streams. 5.9.8

9 Search for hidden fire, break up materials using hand tools, apply water streams and evaluate for complete extinguishment. 5.9.9

10 Assess fire, heat and smoke patterns for determination of fire origin while protecting physical evidence and evaluate for complete extinguishment. 5.9.10

11 Operate hose lines and other water application techniques for maximum penetration and search for and expose hidden fire. 5.9.11

10 **Search and Rescue: Explain the methods for and demonstrate entering a structure using various entry points, performing a comprehensive primary search and rescue/removal of a victim found in an obscured visibility environment and, when appropriate, conducting a secondary search while using appropriate tools and equipment. ([Fire Ground Operations–Search and Rescue] National Fire Protection Association [NFPA] 1001 Ch. 5.3.9)** 5.10

1 List and describe the proper use of forcible entry tools used during structural rescue operations. 5.10.1

2 Describe the proper placement of ground and aerial ladders during structural rescue operations. 5.10.2

3 Describe the physiological effects of operating in obscured conditions and ways to manage them effectively. 5.10.3

4 Describe methods to determine if an area is tenable and safe for interior operations. 5.10.4

5 Describe the proper techniques to conduct a primary search. 5.10.5

6 Describe the proper techniques to conduct a secondary search. 5.10.6

7 List and describe each team member's roles and goals during a structural search and rescue operation. 5.10.7

8 List and describe various methods to locate victims during a search and rescue operation. 5.10.8

9 Describe various methods and carries used to remove victims from a structure, on various floors, during search and rescue operations. 5.10.9

10 Demonstrate the various methods for maneuvering through restricted openings while wearing a self-contained breathing apparatus (SCBA). 5.10.10

11 Demonstrate the proper placement and use of ladders during rescue operations. 5.10.11

12 Demonstrate a rescue of a firefighter with a functioning SCBA. 5.10.12

13 Demonstrate a rescue of a firefighter with a nonfunctioning SCBA. 5.10.13

14 Demonstrate a rescue of a victim with no respiratory protection. 5.10.14

15 Demonstrate the proper techniques for assessing the tenability of a given area. 5.10.15

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11 Structure Fires: Explain procedures for and demonstrate how to deploy, extend and replace attach lines; enter a structure using various entry points; control and extinguish a fire using effective water application techniques for above grade and below grade fires; maintain team integrity; and conduct an effective overhaul. ([Fire Ground Operations–Fire Control] National Fire Protection Association [NFPA] 1001 Ch. 5.3.10; Note: National Fire Protection Association [NFPA] 1403, Standard on Live Fire Training Evolutions, applies.) 5.11

1 List the various types of fire streams used for an interior fire attach. 5.11.1

2 Describe the design, operation, nozzle pressure effects and flow capabilities of various types of fog nozzles. 5.11.2

3 Describe the design, operation, nozzle pressure effects and flow capabilities of various types of smooth bore nozzles. 5.11.3

4 Describe the design, operation, nozzle pressure effects and flow capabilities of various types of specialty nozzles. 5.11.4

5 List and describe the precaution to be followed when advancing hose lines to a fire. 5.11.5

6 Describe the observable results of a properly applied fire stream. 5.11.6

7 Describe various dangerous building conditions created as the result of a fire. 5.11.7

8 Describe the basic principles of exposure protection. 5.11.8

9 List and describe the potential long-term consequences of exposure to products of combustion for a firefighter. 5.11.9

10 List and describe the physical state of matter in which fuels are found. 5.11.10

11 Describe common types of accidents or injuries and their causes that may occur on the fire ground. 5.11.11

12 Describe the proper placement and application of a small diameter (1½ to 2 inch) attach line. 5.11.12

13 Describe the proper placement application of a medium diameter (2½ inch) attach line. 5.11.13

14 Describe the role of a backup team during an interior fire attack. 5.11.14

15 Describe the proper fire attack methods for a grade-level fire. 5.11.15

16 Describe the proper fire attack methods for an above-grade-level fire. 5.11.16

17 Describe the proper fire attack methods for a below-grade-level fire. 5.11.17

18 Describe the proper methods for locating and exposing hidden fires. 5.11.18

19 Demonstrate the proper methods to prevent water hammer when shutting down nozzles. 5.11.19

20 Demonstrate the ability to properly open, close and adjust nozzle flow and patterns on various automatic and adjustable fog nozzles. 5.11.20

21 Demonstrate the ability to properly open and close various smooth bore nozzles. 5.11.21

22 Demonstrate the proper procedures for applying water using a direct fire attack. 5.11.22

23 Demonstrate the proper procedures for applying water using an indirect fire attack. 5.11.23

24 Demonstrate the proper procedures for applying water using a combination fire attack. 5.11.24

25 Demonstrate the proper procedure for advancing a 1½ inch or larger diameter hose up ladders. 5.11.25

26 Demonstrate the proper procedure for advancing a 1½ inch or larger diameter hose up stairways. 5.11.26

27 Demonstrate the proper procedure for advancing a 1½ inch or larger diameter hose down stairways. 5.11.27

28 Demonstrate the proper methods for extending hose lines. 5.11.28

29 Demonstrate the proper methods for replacing burst or broken sections of hose. 5.11.29

30 Operate a charged hose line of 1½ inch diameter or larger while secured to a ground ladder. 5.11.30

31 Demonstrate the proper methods for coupling and uncoupling various size hose connections. 5.11.31

32 Demonstrate the proper fire attack methods for a grade-level fire. 5.11.32

33 Demonstrate the proper attack methods for an above-grade-level fire. 5.11.33

34 Demonstrate the proper fire attack methods for a below-grade-level fire. 5.11.34

35 Locate and suppress interior wall fires. 5.11.35

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12 Horizontal Ventilation: Identify the hazards associated with a structure needing horizontal ventilation and demonstrate various types of horizontal ventilation using natural and mechanical means to remove smoke, heat and toxic gasses from within the structure using appropriate tools, equipment and procedures. ([Fire Ground Operations–Horizontal Ventilation] National Fire Protection Association [NFPA] 1001 Ch. 5.3.11) 5.12

1 List and describe the principles, advantages, limitations and effects of horizontal ventilation. 5.12.1

2 List and describe the principles, advantages, limitations and effects of mechanical ventilation. 5.12.2

3 List and describe the principles, advantages, limitations and effects of hydraulic ventilation. 5.12.3

4 List and describe the safety considerations when venting a structure. 5.12.4

5 Describe the behavior of fire as it relates to venting in a structure. 5.12.5

6 List and explain the products of combustion found in a structure fire. 5.12.6

7 List and explain the signs and cause of backdraft. 5.12.7

8 List and explain the effects of a backdraft. 5.12.8

9 Describe the methods to prevent a backdraft. 5.12.9

10 Explain the relationship of oxygen concentration to life safety. 5.12.10

11 Explain the relationship of oxygen concentration to fire growth. 5.12.11

12 Demonstrate the ability to properly carry and place a ladder to the structure for ventilation. 5.12.12

13 Demonstrate the ability to properly carry various ventilation tools and equipment to the location where they will be used. 5.12.13

14 Demonstrate the proper procedure for safely breaking glass in a window or door and removing all obstructions. 5.12.14

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13 Vertical Ventilation: Identify the hazards associated with a structure needing vertical ventilation and demonstrate vertical ventilation to remove smoke, heat and toxic gasses from within the structure using the appropriate tools, equipment and procedures. ([Fire Ground Operations–Vertical Ventilation] National Fire Protection Association [NFPA] 1001 Ch. 5.3.12) 5.13

1 Discuss the methods of heat transfer. 5.13.1

2 Describe the principles of thermal layering within the structure on fire. 5.13.2

3 Discuss the techniques and safety precautions for venting flat roofs, pitched roofs and basements. 5.13.3

4 Explain the basic indicators of potential collapse or roof failure. 5.13.4

5 Describe the effects of construction type and elapsed time under fire conditions on structural integrity. 5.13.5

6 Discuss the advantages and disadvantages of vertical and trench/strip ventilation. 5.13.6

7 Demonstrate the ability to transport and operate ventilation tools and equipment. 5.13.7

8 Demonstrate the ability to hoist ventilation tools to a roof. 5.13.8

9 Perform the ability to cut roofing and flooring materials to vent flat roofs, pitched roofs and basements. 5.13.9

10 Demonstrate the ability to sound a roof for integrity. 5.13.10

11 Demonstrate the ability to clear an opening with hand tools. 5.13.11

12 Perform the ability to select, carry, deploy and secure ground ladders for ventilation activities. 5.13.12

13 Demonstrate the deployment of a roof ladder on a pitched roof while secured to a ground ladder. 5.13.13

14 Perform a carry of ventilation-related tools and equipment while ascending and descending ladders. 5.13.14

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14 Structure Overhaul: Explain the process and demonstrate the procedures for conducting a safe and effective overhaul without compromising the structure, using appropriate tools, equipment and procedures, to extinguish all fire and protect possible evidence. ([Fire Ground Operations– Overhaul] National Fire Protection Association [NFPA] 1001 Ch. 5.3.13) 5.14

1 List the types of fire attack lines and water application devices most effective for overhaul. 5.14.1

2 Describe the water application methods for extinguishment that will limit water damage. 5.14.2

3 List the types of tools and methods used to expose hidden fires. 5.14.3

4 Discuss the dangers associated with overhaul. 5.14.4

5 List the obvious signs of the area of origin, signs of arson and reasons for protecting evidence. 5.14.5

6 Demonstrate the ability to deploy and operate attack lines during overhaul. 5.14.6

7 Demonstrate the steps for removing flooring, ceiling and wall material to expose void spaces without compromising structural integrity. 5.14.7

8 Perform water application for maximum effectiveness during overhaul. 5.14.8

9 Demonstrate the steps for exposing and extinguishing hidden fires in walls, ceilings and subfloor spaces. 5.14.9

10 Demonstrate how to preserve evidence, detect area of origin and evaluate for complete extinguishment. 5.14.10

15 **Salvage Operations: Explain the methods and demonstrate the actions required to conduct property conservation by covering unwanted openings, covering/protecting furnishings, stopping or rerouting water flow from sprinkler systems, removing charred materials and protecting scene evidence. Clean, inspect, fold and roll salvage covers to prepare for reuse. ([Fire Ground Operations–Property Conservation] National Fire Protection Association [NFPA] 1001 Ch. 5.3.14)** 5.15

1 Discuss the purpose of property conservation and its value to the public. 5.15.1

2 Describe the methods used to protect property. 5.15.2

3 List the types of and uses for salvage covers. 5.15.3

4 Discuss the operations for properties protected with automatic sprinklers. 5.15.4

5 Describe how to stop the flow of water from an automatic sprinkler head. 5.15.5

6 Discuss the identification of main control valves on an automatic sprinkler system. 5.15.6

7 Discuss forcible entry issues related to salvage. 5.15.7

8 Demonstrate the ability to cluster furniture. 5.15.8

9 Demonstrate how to deploy covering materials. 5.15.9

10 Demonstrate how to roll and fold salvage covers for reuse. 5.15.10

11 Demonstrate how to construct water chutes and catchalls. 5.15.11

12 Demonstrate the procedures for removing water. 5.15.12

13 Demonstrate how to cover building openings, including doors, windows, floor openings and roof openings. 5.15.13

14 Perform the steps to separate, remove and relocate charred material to a safe location while protecting the area of origin for fire determination. 5.15.14

15 Demonstrate how to stop the flow of water from a sprinkler head with sprinkler wedges or stoppers. 5.15.15

16 Operate a main control valve on an automatic sprinkler system. 5.15.16

17 Discuss procedures for protecting possible areas of origin and potential evidence. 5.15.17

16 **Water Supply: Explain the steps and demonstrate the procedures for connecting a supply hose to a hydrant and making a forward and reverse lay, operating a hydrant and obtaining water from a suitable static water source that includes drafting from a portable water tank. ([Fire Ground Operations–Water Supply] National Fire Protection Association [NFPA] 1001 Ch. 5.3.15)** 5.16

1 Discuss loading and offloading procedures for a mobile water supply apparatus. 5.16.1

2 Describe fire hydrant operations. 5.16.2

3 Discuss procedures and protocol for connecting to suitable static water supply sources. 5.16.3

4 Perform the ability to hand lay a supply hose. 5.16.4

5 Demonstrate how to connect and place a hard suction hose for drafting operations. 5.16.5

6 Operate the deployment of portable water tanks as well as the equipment necessary to transfer water between and draft from them. 5.16.6

7 Perform hydrant-to-pumper hose connections for forward and reverse lays. 5.16.7

8 Connect a supply hose to a hydrant and fully open and close the hydrant. 5.16.8

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17 Fire Classification: Identify Class A, B, C and K type fires and relate the fire to the appropriate type of fire extinguisher. Select the correct fire extinguisher and extinguish a Class A, B and C type incipient fire. ([Fire Ground Operations–Portable Fire Extinguisher] National Fire Protection Association [NFPA] 1001 Ch. 5.3.16) 5.17

1 List the different classifications of fire. 5.17.1

2 List the types of rating system for each classification of fire. 5.17.2

3 List the risks associated with each classification of fire. 5.17.3

4 Describe the operating methods of a portable extinguisher. 5.17.4

5 Describe the limitations of a portable extinguisher. 5.17.5

6 Demonstrate the ability to operate a portable extinguisher. 5.17.6

7 Demonstrate how to approach fire with a portable extinguisher. 5.17.7

8 Demonstrate how to select an appropriate extinguisher based on the size and type of fire. 5.17.8

9 Demonstrate how to carry a portable extinguisher safely. 5.17.9

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18 Scene Lighting: Explain the process for choosing the appropriate lighting system and placement of the lights for a given fire scene. Demonstrate the procedures by choosing, deploying and safely illuminating a fire scene scenario. ([Fire Ground Operations–Scene Illumination] National Fire Protection Association [NFPA] 1001 Ch. 5.3.17) 5.18

1 Discuss the safety principles and practices for using lighting equipment. 5.18.1

2 Describe power supply capabilities and limitations. 5.18.2

3 List the methods of light deployment. 5.18.3

4 Demonstrate the ability to operate department power supply units (e.g., generators, power take-off [PTO]). 5.18.4

5 Demonstrate the ability to operate lighting equipment (e.g., tripods, masts). 5.18.5

6 Demonstrate how to select and set up cords and connectors. 5.18.6

7 Demonstrate how to reset ground fault interrupter (GFI) devices and apparatus breakers. 5.18.7

8 Demonstrate how to position lighting for optimal safety and effect. 5.18.8

19 Utilities Shutoff: Identify the safety concerns and procedures for turning off the gas, electric and water supplies to a structure. Demonstrate the procedures for shutting off the utilities. ([Fire Ground Operations–Turn Off Utilities] National Fire Protection Association [NFPA] 1001 Ch. 5.3.18) 5.19

1 List the properties and principles for utilities likely encountered (i.e., electricity, gas, water, hydraulic and pneumatic systems). 5.19.1

2 List the safety concerns for utilities likely encountered (i.e., electricity, gas, water, hydraulic and pneumatic systems). 5.19.2

3 List the methods for rending utilities likely encountered safe (e.g., shutoff, disconnection, lockout). 5.19.3

4 Describe the associated dangers related to rending utilities safe. 5.19.4

5 Describe the use of required safety equipment in rendering utilities safe. 5.19.5

6 Demonstrate the ability to identify utility control devices. 5.19.6

7 Demonstrate the ability to operate utility-related control valves or switches. 5.19.7

8 Demonstrate the ability to perform an assessment for utility-related hazards. 5.19.8

20 Ground Cover: Fires Identify the hazards associated with ground cover fires, identify types and features of ground cover fires and demonstrate controlling/extinguishing fires using the appropriate fire lines, hose, tools and water application. ([Fire Ground Operations–Ground Cover Fires] National Fire Protection Association [NFPA] 1001 Ch. 5.3.19) 5.20

1 List the fuel classifications as they relate to wildland fires. 5.20.1

2 List the parts of a wildland fire. 5.20.2

3 Discuss the methods used to approach and attack wildland fires for containment or suppression. 5.20.3

4 Discuss the safety principles and practices commonly used for wildland fire containment and suppression. 5.20.4

5 Demonstrate the steps to determine exposure threats based on wildland fire spread. 5.20.5

6 Demonstrate how the exposures are protected from spreading wildland fires. 5.20.6

7 Demonstrate the steps to construct a fire line. 5.20.7

8 Demonstrate the steps to extinguish a wildland fire using hand tools. 5.20.8

9 Demonstrate the steps to maintain the integrity of established fire lines against a spreading wildland fire. 5.20.9

10 Demonstrate the steps to suppress a contained wildland fire with water. 5.20.10

21 **Rope Use: Explain the differences, care, maintenance, inspection and uses for life safety rope compared to utility rope and demonstrate hoisting tools using the appropriate knots. ([Fire Ground Operations–Ground Cover Fires] National Fire Protection Association [NFPA] 1001 Ch. 5.3.20)** 5.21

1 Discuss knot types and usages. 5.21.1

2 Describe the differences between life safety and utility rope. 5.21.2

3 Explain the reasons for placing rope out of service. 5.21.3

4 Discuss how the different types of knots are used for given tools, ropes, or situations. 5.21.4

5 Discuss how rope is used to support response activities. 5.21.5

6 Demonstrate the hoisting methods for tools and equipment. 5.21.6

7 Demonstrate hoisting tools and equipment using ropes and the correct knot. 5.21.7

22 **Equipment Maintenance: Explain and demonstrate the proper methods for inspecting, cleaning, maintaining and record keeping for basic tools and equipment, ladders and ropes, ventilation equipment and hose and self-contained breathing apparatus (SCBA). Prepare hose for reuse by rolling and reloading into the hose bed. ([Preparedness and Maintenance] National Fire Protection Association [NFPA] 1001 Ch. 5.5–5.52)** 5.22

1 Describe the process for the cleaning, inspection, maintenance and record keeping of ladders following the manufacturer's or department's guidelines. 5.22.1

2 Describe the process for the cleaning, inspection, maintenance and record keeping of ventilation equipment following the manufacturer's or department's guidelines. 5.22.2

3 Describe the process for the cleaning, inspection, maintenance and record keeping of SCBA following the manufacturer's or department's guidelines. 5.22.3

4 Describe the process for the cleaning, inspection, maintenance and record keeping of ropes following the manufacturer's or department's guidelines. 5.22.4

5 Describe the process for the cleaning, inspection, maintenance and record keeping of salvage equipment following the manufacturer's or department's guidelines. 5.22.5

6 Describe the process for the cleaning, inspection, maintenance and record keeping of hand tools following the manufacturer's or department's guidelines. 5.22.6

7 Demonstrate the cleaning, inspection, basic maintenance and record keeping of ladders in accordance with the manufacturer's or department's guidelines. 5.22.7

8 Demonstrate the cleaning, inspection, basic maintenance and record keeping of ventilation equipment in accordance with the manufacturer's or department's guidelines. 5.22.8

9 Demonstrate the cleaning, inspection, basic maintenance and record keeping of SCBA in accordance with the manufacturer's or department's guidelines. 5.22.9

10 Demonstrate the cleaning, inspection, basic maintenance and record keeping of ropes in accordance with the manufacturer's or department's guidelines. 5.22.10

11 Demonstrate the cleaning, inspection, basic maintenance and record keeping of salvage equipment in accordance with the manufacturer's or department's guidelines. 5.22.11

12 Demonstrate the cleaning, inspection, basic maintenance and record keeping of hand tools in accordance with the manufacturer's or department's guidelines. 5.22.12

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23 Incident Management: Explain and apply the actions required within the Incident Management System (IMS) for distinguishing the need for organizing, assuming and transferring command; and applying all applicable National Fire Protection Association, department and agency having jurisdiction (AHJ) safety procedures while assuming an assigned roll within the IMS. ([General Knowledge Requirements] National Fire Protection Association [NFPA] 1001 Ch. 6.1.1-6.1.2) 5.23

1 Define the role and responsibilities of a Firefighter 2. 5.23.1

2 Describe the roles and responsibilities for assuming and transferring command within an IMS. 5.23.2

3 Discuss the responsibilities of the first-arriving fire fighters. 5.23.3

4 Define the applicable NFPA and other safety regulations. 5.23.4

5 Define the applicable NFPA standards and other safety regulations. 5.23.5

6 Demonstrate the ability to determine the need for command. 5.23.6

7 Organize and coordinate an IMS until command is transferred. 5.23.7

8 Function within an assignment role within an Incident Command System (ICS). 5.23.8

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24 Records and Documentation: Identify the information required for completing incident reports and explain the reasons for completing thorough, accurate reports. Demonstrate how to obtain pertinent, accurate information while completing a written or electronically generated incident report. ([Department Communications] National Fire Protection Association [NFPA] 1001 Ch. 6.2-6.2.1) 5.24

1 Describe the steps in processing and initiating an emergency response. 5.24.1

2 List the information that should be included in a basic incident report. 5.24.2

3 Explain the purpose and usefulness of accurate reports. 5.24.3

4 Discuss the consequences of inaccurate reports. 5.24.4

5 List how to obtain the necessary information and the required coding procedures. 5.24.5

6 Demonstrate the ability to determine necessary codes. 5.24.6

7 Demonstrate the ability to proof reports and the technology necessary to complete reports. 5.24.7

25 **Radio Communication: Explain and demonstrate providing radio communications addressing the progress and needs of the team/company. ([Department Communications] National Fire Protection Association [NFPA] 1001 Ch. 6.2.2)** 5.25

1 Discuss the standard operating procedures for alarm assignments and fire department radio communication procedures. 5.25.1

2 Demonstrate the ability to operate fire department communication equipment. 5.25.2

26 **Foam Application: Explain and demonstrate choosing the correct type of foam, using the appropriate method and rate of foam application to extinguish given fires, generating and applying foam to reduce hazards and selecting and operating various types of nozzles to apply foam. ([Fire Ground Operations–Foam] National Fire Protection Association [NFPA] 1001 Ch. 6.3.1)** 5.26

1 List the methods by which foam prevents or controls a hazard. 5.26.1

2 Describe the principles by which foam is generated. 5.26.2

3 Discuss the causes for poor foam generation and corrective measures. 5.26.3

4 Describe the difference between hydrocarbon and polar solvent fuels and the concentrates that work on each. 5.26.4

5 Describe the characteristics, uses and limitations of firefighting foams. 5.26.5

6 List the advantages and disadvantages of using fog nozzles versus foam nozzles for foam application. 5.26.6

7 Discuss the techniques for foam stream application. 5.26.7

8 Describe the hazards associated with foam usage. 5.26.8

9 List the methods used to reduce or avoid hazards. 5.26.9

10 Demonstrate the ability to prepare a foam concentrate supply for use. 5.26.10

11 Assemble foam stream components. 5.26.11

12 Demonstrate how to approach and retreat from spills as part of a coordinated team. 5.26.12

27 **Interior Fire Suppression: Evaluate the fire scene and structure stability, select the appropriate tools and equipment and demonstrate an interior attack on a structure fire, maintaining communication with your team and incident command, performing ventilation, search and rescue of victims and extinguishing fire located on various levels and grades of the structure. ([Fire Ground Operations–Structure Fires] National Fire Protection Association [NFPA] 1001 Ch. 6.3.2; Note: NFPA 1403, Standard on Live Fire Training Evolutions, applies.)** 5.27

1 Discuss the selection of nozzle and hose for fire attack given the different fire situations. 5.27.1

2 Discuss the selection of adapter and appliances to be used for specific fire ground situations. 5.27.2

3 Describe the dangerous building conditions created by the fire and fire suppression activities. 5.27.3

4 List the indicators of a building collapse. 5.27.4

5 Discuss the effects of fire and fire suppression on wood, masonry (brick, block, stone), cast iron, steel, reinforced concrete, gypsum, wallboard, glass and plaster on lath. 5.27.5

6 Describe search and rescue and ventilation procedures. 5.27.6

7 List the indicators of structural instability. 5.27.7

8 Discuss the suppression approaches and practices for various types of structural fires. 5.27.8

9 Describe the association between specific tools and special forcible entry needs. 5.27.9

10 Demonstrate the ability to assemble a team, choose attack techniques for various levels of fire (e.g., attic, grade-level, upper-level, basement) and evaluate and forecast a fire's growth and development. 5.27.10

11 Select tools for forcible entry. 5.27.11

12 Demonstrate how to incorporate search and rescue procedures and ventilation procedures in the completion of the attack team efforts. 5.27.12

13 Identify developing hazardous building or fire conditions. 5.27.13

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28 **Life Safety: Explain the procedures, identify hazards and demonstrate the skills required for evaluating safety concerns, cylinder contents and cylinder integrity of a cylinder on fire; identifying safe havens and evacuation procedures; selecting the appropriate tools, equipment and water application techniques and flow requirements; and evaluating, controlling and extinguishing a flammable cylinder fire. ([Fire Ground Operations–Flammable Cylinder Fire] National Fire Protection Association [NFPA] 1001 Ch. 6.3.3)** 5.28

1 Discuss the characteristics of pressurized flammable gases. 5.28.1

2 Describe the elements of a gas cylinder and the effects of heat and pressure on closed cylinders. 5.28.2

3 Describe the boiling liquid expanding vapor explosion (BLEVE) signs and effects. 5.28.3

4 List the methods for identifying content and how to identify safe havens before approaching flammable gas cylinder fires. 5.28.4

5 Discuss the water stream usage and demands for pressurized cylinder fires. 5.28.5

6 Discuss what to do if the fire is prematurely extinguished. 5.28.6

7 Describe the valve types and their operation. 5.28.7

8 Explain the alternate actions related to various hazards and when to retreat. 5.28.8

9 Demonstrate the ability to execute effective advances and retreat. 5.28.9

10 Demonstrate the applicability of various techniques for water application. 5.28.10

11 Demonstrate the ability to assess cylinder integrity and changing cylinder conditions, operate control valve and choose effective procedures when conditions change. 5.28.11

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29 Fire Investigation: Explain the measures taken and demonstrate the steps required for identifying the origin and cause of a fire and protecting possible evidence of arson. ([Fire Ground Operations–Protecting Evidence] National Fire Protection Association [NFPA] 1001 Ch. 6.3.4) 5.29

1 Discuss the methods to assess origin and cause, type of evidence and means to protect various types of evidence. 5.29.1

2 Describe the role and the relationship of Firefighter 1, criminal investigators and insurance investigators in fire investigations. 5.29.2

3 Describe the effects and problems associated with removing property or evidence from the scene. 5.29.3

4 Demonstrate the ability to locate the fire origin area, recognize possible causes and protect the evidence. 5.29.4

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30 Vehicle and Equipment: Use Explain and perform assessing scene safety and stabilization of a vehicle involved in an accident; assessing the vehicle's strong, weak and access points; using extrication tools and equipment to remove vehicle components to disentangle a victim; and assisting a technical rescue team by retrieving equipment and/or tools and recognizing inherent hazards associated with various types of rescues. ([Rescue Operations] National Fire Protection Association [NFPA] 1001 Ch. 6.4-6.4.2) 5.30

1 Describe the fire department’s role at a vehicle accident. 5.30.1

2 Discuss the points of strength and weakness of an automobile body. 5.30.2

3 Discuss the dangers associated with vehicle components and systems. 5.30.3

4 Discuss the safety procedures, uses and limitations of hand and power tools used for extrication. 5.30.4

5 Describe the firefighter’s role at technical rescue operations. 5.30.5

6 Discuss the hazards associated with technical rescues. 5.30.6

7 Discuss the tools used for technical rescue and their uses, including good practice. 5.30.7

8 Demonstrate how to operate hand and power tools used in forcible entry of vehicles. 5.30.8

9 Demonstrate the usage of cribbing and shoring materials. 5.30.9

10 Choose and apply techniques for removing vehicle roofs, doors, windshields, windows, steering wheels and columns and dashboards. 5.30.10

11 Demonstrate how to identify and retrieve various types of rescue tools for technical rescues. 5.30.11

12 Demonstrate how to set up effective public barriers. 5.30.12

13 Assist a rescue team as a member, when assigned. 5.30.13

31 Fire Prevention: Explain current programs and procedures that target reducing fires and life safety hazards through inspections, education and public relations. Prepare a fire safety survey on an occupied structure, generating recommendations for reducing possible hazards. ([Fire and Life Safety Initiatives, Preparedness and Maintenance] National Fire Protection Association [NFPA] 1001 Ch. 6.5-6.5.1) 5.31

1 Describe organizational policies and procedures. 5.31.1

2 Discuss the common causes of fire and their prevention. 5.31.2

3 Explain the importance of public safety survey and public fire education programs to a fire department's public relations and the community, including referral procedures. 5.31.3

4 Demonstrate the ability to complete forms, recognize hazards, match findings to pre- approved recommendations and effectively communicate findings to occupants or referrals. 5.31.4

32 Community Outreach: Discuss the basic presentation skills and knowledge requirements needed for conducting a safety presentation using prepared materials. Demonstrate a safety presentation to a small group of people during a station tour. ([Fire and Life Safety Initiatives, Preparedness and Maintenance] National Fire Protection Association [NFPA] 1001 Ch. 6.5.2) 5.32

1 Describe parts of informational materials and how to use them. 5.32.1

2 Discuss basic presentation skills and departmental standard operating procedures for giving fire station tours. 5.32.2

3 Demonstrate the ability to document presentations and to use prepared materials. 5.32.3

33 Safety Inspection: Explain the procedures for conducting a pre-incident survey and prepare a pre-incident report, use appropriate forms, prepare a diagram of the structure (using common symbols to designate the water supply, fire detection and suppression systems, construction features and utilities) and identify special features and hazards associated with the structure. ([Fire and Life Safety Initiatives, Preparedness and Maintenance] National Fire Protection Association [NFPA] 1001 Ch. 6.5.3) 5.33

1 Describe the source of water supply for fire protection. 5.33.1

2 Discuss the fundamentals of fire suppression and detection systems. 5.33.2

3 Discuss the common symbols used in diagramming construction features, utilities, hazards and fire protection systems. 5.33.3

4 Explain the departmental requirements for a pre-incident survey and form completion and the importance of accurate diagrams. 5.33.4

5 Demonstrate the components of fire suppression and detection systems and sketch the site, buildings and special features. 5.33.5

6 Perform the ability to detect hazards and special considerations to include in the pre-incident sketch. 5.33.6

7 Demonstrate the ability to complete all related departmental forms. 5.33.7

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34 Tool Maintenance: Explain and demonstrate the cleaning and maintenance of power plants, power tools, lighting equipment and hand tools. Complete appropriate maintenance records. ([Fire and Life Safety Initiatives, Preparedness and Maintenance] National Fire Protection Association [NFPA] 1001 Ch. 6.5.4) 5.34

1 Discuss the types of cleaning methods. 5.34.1

2 Explain the correct cleaning solvents. 5.34.2

3 Describe manufacturers' and departmental guidelines for maintaining equipment and documentation. 5.34.3

4 Explain the problem-reporting practices. 5.34.4

5 Demonstrate the ability to select correct tools, follow guidelines and complete recording and reporting procedures. 5.34.5

6 Demonstrate the ability to operate power plants, power tools and lighting equipment. 5.34.6

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35 Hose Maintenance: Explain the processes and demonstrate the procedures for inspecting, testing and placing a hose out-of-service and completing documentation of test results. ([Fire and Life Safety Initiatives, Preparedness and Maintenance] National Fire Protection Association [NFPA] 1001 Ch. 6.5.5) 5.35

1 Discuss the procedures for safely conducting hose service testing. 5.35.1

2 Describe the indicators that dictate any hose be removed from service and recording procedures for hose test results. 5.35.2

3 Demonstrate the ability to operate a hose testing and nozzles and to record the results. 5.35.3

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36 Hazardous Materials: Identify and respond to hazardous material incidents. (The firefighter candidate shall meet the requirements defined in Ch. 5 [Core Competencies for Operations Level Responders] and Ch. 6.6 [Mission-Specific Competencies Product Control] National Fire Protection Association [NFPA] 472 [Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents].) 5.36

1 Identify different forms of hazardous materials. 5.36.1

2 Identify agencies that have resources to assist in hazardous material incidents (e.g., Emergency Management Agency [EMA], Environmental Protection Agency [EPA], Federal Emergency Management Agency [FEMA]). 5.36.2

3 Identify and interpret hazardous material labels and placards using the U.S. Department of Transportation (DOT) Emergency Response Guidebook. 5.36.3

4 Read and interpret Material Safety Data Sheet (MSDS) forms and shipping documents. 5.36.4

5 Identify sources of information on procedures for the safe cleanup, storage and disposal of hazardous materials (e.g., CHEMTREC®). 5.36.5

6 Describe the purpose of a hazardous materials safety plan. 5.36.6

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37 Test, Inspect and Service an Emergency Vehicle: Perform routine tests, inspections and servicing functions on the systems and components specified in the following list, given a fire department vehicle, its manufacturer's specifications and policies and procedures of the jurisdiction, so that the operational status of the vehicle is verified: battery(ies); braking system; coolant system; electrical system; fuel; hydraulic fluids; oil; tires; steering system; belts; and tools, appliances and equipment. 5.37

1 List routine tests, inspections and servicing functions performed on the system and components, given a fire department vehicle and its manufacturer's specifications, so the operational status is verified. 5.37.1

2 Demonstrate the ability to use hand tools. 5.37.2

3 Demonstrate the ability to recognize system problems. 5.37.3

4 Demonstrate the ability to document any deficiency noted according to policies and procedures. 5.37.4

5 Document routine tests, inspections and servicing functions given maintenance and section forms, so that all items are checked for operation and deficiencies are reported. 5.37.5

6 Discuss requirements for documenting maintenance performed and the importance of keeping accurate records. 5.37.6

7 Demonstrate the ability to use tools and equipment and complete all related departmental forms. 5.37.7

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38 Document Emergency Vehicle Inspections: Document the routine tests, inspections and servicing functions, given maintenance and inspection forms, so that all items are checked for operation and deficiencies are reported. 5.38

1 Discuss requirements for documenting maintenance performed and the importance of keeping accurate records. 5.38.1

2 Demonstrate the ability to use tools and equipment and complete all related departmental forms. 5.38.2

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39 Operate an Emergency Vehicle: Operate a fire department vehicle, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features, specified in the following list, that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable state and local laws, departmental rules and regulations and the requirements of NFPA 1500, Section 4.2: four left turns and four right turns; a straight section of urban business street or a two-lane rural road at least 1.6 km (1 mile) in length; one through-intersection and two intersections where a stop has to be made; one railroad crossing; one curve,

either left or right; a section of limited-access highway that includes a conventional ramp entrance and exit and a section of road long enough to allow two lane changes; a downgrade steep enough and long enough to require down-shifting and braking; an upgrade steep enough and long enough to require gear changing to maintain speed; and one underpass or a low clearance or bridge. 5.39

1 Describe the effects on vehicle control of liquid surge, braking reaction time and load factors; effects of high center of gravity on roll-over potential, general steering reactions, speed, centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting and gear patterns; negotiating intersections, railroad crossings and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges and operational limits. 5.39.1

2 Demonstrate the operation of a fire department vehicle, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable state laws, local laws and departmental rules and regulations. 5.39.2

3 Demonstrate the ability to operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating and turning, given road, weather and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls. 5.39.3

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40 **Back an Emergency Vehicle: Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle, given a fire department vehicle, a spotter and restricted spaces 3.7 m (12 ft) in width, requiring 90-degree right-hand and left hand turns from the roadway, so that the vehicle is parked within the restricted areas without having to stop and pull forward and without striking obstructions.** 5.40

1 Discuss the vehicle dimensions, turning characteristics, spotter signaling and principles of safe vehicle operation. 5.40.1

2 Perform the ability to use mirrors and judge vehicle clearance. Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle, given a fire department vehicle, a spotter and restricted spaces 3.7 m (12 ft) in width, requiring 90-degree right-hand and left-hand turns from the roadway, so that the vehicle is parked within the restricted areas without having to stop and pull forward and without striking obstructions. 5.40.2

3 Demonstrate the ability to use mirrors and judge vehicle clearance. 5.40.3

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41 **Maneuver an Emergency Vehicle: Maneuver a vehicle around obstructions on a roadway while moving forward and in reverse, given a fire department vehicle, a spotter for backing and a roadway with obstructions, so that the vehicle is maneuvered through the obstructions without stopping to change the direction of travel and without striking the obstructions.** 5.41

1 Discuss the vehicle dimensions, turning characteristics, spotter signaling and principles of safe vehicle operation. 5.41.1

2 Perform the ability to use mirrors and judge vehicle clearance. Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle, given a fire department vehicle, a spotter and restricted spaces 3.7 m (12 ft) in width, requiring 90-degree right-hand and left-hand turns from the roadway, so that the vehicle is parked within the restricted areas without having to stop and pull forward and without striking obstructions. 5.41.2

3 Demonstrate the ability to use mirrors and judge vehicle clearance. 5.41.3

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42 Turn an Emergency Vehicle: Turn a fire department vehicle 180 degrees within a confined space, given a fire department vehicle, a spotter for backing up and an area in which the vehicle cannot perform a U-turn without stopping and backing up, so that the vehicle is turned 180 degrees without striking obstructions within the given space. 5.42

1 Explain the vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling and principles of safe vehicle operation. 5.42.1

2 Demonstrate the ability to maneuver a vehicle around obstructions on a roadway while moving forward and in reverse, given a fire department vehicle, a spotter for backing and a roadway with obstructions, so that the vehicle is maneuvered through the obstructions without stopping to change the direction of travel and without striking the obstructions. 5.42.2

3 Demonstrate the capability to use mirrors and judge vehicle clearance. 5.42.3

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43 Maneuver an Emergency Vehicle in a Restricted Space: Maneuver a fire department vehicle in areas with restricted horizontal and vertical clearances, given a fire department vehicle and a course that requires the operator to move through areas of restricted horizontal and vertical clearances, so that the operator accurately judges the ability of the vehicle to pass through the openings and so that no obstructions are struck. 5.43

1 Discuss the vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling and principles of safe vehicle operation. 5.43.1

2 Explain the maneuver of a fire department vehicle in areas with restricted horizontal and vertical clearances, given a fire department vehicle and a course that requires the operator to move through areas of restricted horizontal and vertical clearances, so that the operator accurately judges the ability of the vehicle to pass through the opening and so that no obstructions are struck. 5.43.2

3 Perform the ability to use mirrors and judge vehicle clearance. 5.43.3

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44 Emergency Vehicle Defensive Driving Techniques: Operate a vehicle using defensive driving techniques under emergency conditions, given a fire department vehicle and emergency conditions, so that control of the vehicle is maintained. 5.44

1 Explain the effects on vehicle control of liquid surge, braking reaction time and load factors; the effects of high center of gravity on roll-over potential, general steering reactions, speed and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting and gear patterns; negotiation of intersections, railroad crossings and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits. 5.44.1

2 Operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating and turning, given road, weather and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls. 5.44.2

3 Demonstrate the operation of a vehicle using defensive driving techniques under emergency conditions, given a fire department vehicle and emergency conditions, so that control of the vehicle is maintained. 5.44.3

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45 Operate Emergency Vehicle Fixed Systems: Operate all fixed systems and equipment on the vehicle not specifically addressed elsewhere in this standard, given systems and equipment, manufacturer's specifications and instructions and departmental policies and procedures for the systems and equipment, so that each system or piece of equipment is operated in accordance with the applicable instructions and policies. 5.45

1 Explain the manufacturer's specification and operating procedures and policies and procedures of the jurisdiction. 5.45.1

2 Demonstrate all fixed systems and equipment on the vehicle not specifically addressed elsewhere in this standard, given systems and equipment, manufacturer's specifications and instructions and departmental policies and procedures for the systems and equipment, so that each system or piece of equipment is operated in accordance with the applicable instructions and policies. 5.45.2

3 Demonstrate the ability to deploy, energize and monitor the system or equipment and to recognize and correct system problems. 5.45.3

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46 Specify Emergency Vehicle Requirements: The purpose of this standard shall be to specify the minimum requirements for a fire service vehicle operations training program, including procedures for those members that drive or occupy fire service vehicles, respond in private vehicles or unconventional means of transportation and provide traffic control at the scene of an emergency. 5.46

1 Discuss the fire department's driving training program and the critical aspects of NFPA 1451 Standards for a Fire Service Vehicle Operations Training Program and explaining the operating procedures, policies and procedures of the fire department. 5.46.1

2 Discuss the fire department's driving training program and the critical aspects of NFPA 1451 Standard for a Fire Service Vehicle Operations Training Program explaining the laws and liabilities, crash and injury prevention and crash review. 5.46.2

3 Discuss the fire department's driving training program and the critical aspects of NFPA 1451 Standard for a Fire Service Vehicle Operations Training Program explaining the emergency response in fire apparatus and personal vehicles. 5.46.3

Homeland Security: Learners apply principles of the National Response Framework to protect critical infrastructure from natural disaster and terrorism events through the all-hazards approach of emergency management; incident command; intelligence gathering; vulnerability assessments; emergency planning; and chemical, biological, radiological, nuclear and high yield explosives (CRBNE) preparedness. 6

1 **Terrorism and Disaster Preparedness: Analyze terrorism, human trafficking and disaster preparedness and the role of homeland security in prevention, mitigation, response and recovery.** 6.1

1 Analyze the types, modes of operation and tactics of terrorist organizations, both foreign and domestic. 6.1.1

2 Summarize the roles, duties and strengths of local, state and federal agencies involved in homeland security. 6.1.2

3 Describe the chain of command and hierarchy among all homeland security agencies. 6.1.3

4 Critique communication issues, procedures and interoperability among all homeland security agencies. 6.1.4

5 Compare and contrast responding to a terrorism-created crime scene and a non-terrorism- related crime scene. 6.1.5

6 Describe the purpose of interagency and intergovernmental collaboration in responding to emergency incidents. 6.1.6

7 Describe the purpose for non-governmental organizations (NGOs) in responding to emergency incidents. 6.1.7

8 Identify and describe the role of the emergency management agency director in developing a community emergency response plan and coordinating a response to a disaster. 6.1.8

9 Summarize the procedures necessary for a local entity or state to obtain federal assistance in a disaster situation. 6.1.9

10 Compare and contrast the roles of the National Guard and military in responding to disasters. 6.1.10

2 **Infrastructure and Border Protection: Describe the elements of national infrastructure and border protection.** 6.2

1 Identify major points of vulnerability in the nation's transportation, agriculture, food, water, energy and communications infrastructure and borders. 6.2.1

2 Identify techniques to protect and secure infrastructure and borders. 6.2.2

3 Describe the National Infrastructure Protection Plan (NIPP) and the role of the emergency responder. 6.2.3

4 Describe local, state and federal agencies that protect the nation's infrastructure and borders. 6.2.4

5 Implement an emergency operations plan in response to an attack on infrastructure or borders. 6.2.5

3 **Intelligence Gathering: Describe intelligence-gathering activities on threat analysis.** 6.3

1 Apply legal issues related to intelligence-gathering activities to prevent domestic and international terrorism (e.g., Patriot Act, homeland security, presidential directives). 6.3.1

2 Describe the local, state and federal agencies involved in intelligence gathering. 6.3.2

3 Identify and describe barriers to the gathering and sharing of intelligence by agencies and the role of the Director of National Intelligence. 6.3.3

4 Describe strategies used to gather and evaluate domestic and international intelligence information. 6.3.4

5 Use intelligence to develop a threat and vulnerability assessment against a target. 6.3.5

4 **Hazardous Materials: Identify and describe procedures for reacting to a chemical, biological, radiological, nuclear and high-yield explosive (CBRNE).** 6.4

1 Identify possible targets and outcomes of CBRNE attacks and procedures to prevent and mitigate the threat. 6.4.1

2 Summarize the types of thermal, radiological, asphyxiation, chemical, etiological, mechanical (TRACEM) agents, behaviors, hazards and harm. 6.4.2

3 Implement self-protective measures (e.g., shielding, time, distance) based on type of TRACEM incident. 6.4.3

4 Cite evidence and evaluate warning signs of CBRNE incidents. 6.4.4

5 Classify material and summarize response measures that should be taken with a CBRNE incident. 6.4.5

6 Draw conclusions based on hazard identity and physical environment to develop a scene control plan. 6.4.6

7 Use detection equipment to identify CBRNE agents and conduct a hazard and risk assessment. 6.4.7

8 Recognize the signs and symptoms of CBRNE agent exposure and formulate first aid, triage and fatality management procedures. 6.4.8

9 Control and contain CBRNE agents and decontaminate self, victims, site, equipment and mass casualties based on a chemical, biological, or radiological agent. 6.4.9

10 Describe the unique crime scene and evidence preservation issues associated with a CBRNE incident. 6.4.10

11 Plan the transition from the response phase to the recovery phase in a CBRNE incident. 6.4.11

5 **Emergency Operations Plan: Describe the all-hazards emergency planning process from development to implementation of an emergency operations plan (EOP).** 6.5

1 Describe an EOP and its purpose at the local, state and federal level. 6.5.1

2 Identify public service systems and officials involved in planning. 6.5.2

3 Identify and describe the four steps in emergency planning (i.e., hazard analysis, EOP development, EOP testing, EOP maintenance and revision). 6.5.3

4 Identify and analyze hazards using the four-step hazard analysis method (i.e., identify hazard, profile hazard, profile community, determine vulnerability). 6.5.4

5 List and describe the basic components of an EOP. 6.5.5

6 Describe and differentiate functional annexes and hazard specific appendices. 6.5.6

7 Activate the incident command system and implement an emergency response following an EOP. 6.5.7

Investigation and Forensics: Learners apply principles of physical, social and knowledge sciences to gather and analyze physical evidence, solve crimes, prepare evidence for prosecution and interview and interrogate subjects to determine fact from fiction. 7

1 Investigative Process: Investigate and document scenes, individuals and incidents. 7.1

1 Outline the investigative process from determination that a crime was committed through evidence collection and prosecution. 7.1.1

3 Identify and provide aid to victims with minimal impact on a crime scene. 7.1.2

3 Identify and secure the crime scene, using proper chain of custody procedures for evidence collection (e.g., finger prints, deoxyribonucleic acid [DNA], physical evidence, witness statements). 7.1.3

4 Document the crime scene through sketches, photography and video that include measurements. 7.1.4

5 Collect, package, tag and preserve different types of evidence. 7.1.5

6 Identify, locate and apprehend a suspect. 7.1.6

7 Apply the legal standard of evidentiary chain of custody, including the collection, securing, transporting, storing, releasing and final disposition of evidence. 7.1.7

8 Identify signs of mental and physical abuse or neglect of children and adults and report as mandated by law. 7.1.8

9 Describe the role and function of the coroner and medical examiner in investigations. 7.1.9

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2 Interviews and Interrogations: Gather and analyze verbal and nonverbal information to investigate a crime. 7.2

1 Distinguish facts from fiction through listening to and observing the subject's body language, eye movement, voice tone and inflection. 7.2.1

2 Interpret a subject's responses using kinesics. 7.2.2

3 Assist witnesses in enhancing their memory. 7.2.3

4 Select and use different interrogation styles based on subject characteristics and behavior. 7.2.4

5 Describe the impact of location and environment on information obtained. 7.2.5

6 Explain why individuals make false confessions. 7.2.6

3 **Drugs and Toxicology: Describe the types of drug and toxicology evidence and identify the methods used for collection and analysis.** 7.3

1 Identify controlled substances in different forms. 7.3.1

2 Describe field drug testing and lab drug testing procedures. 7.3.2

3 Explain how false positives occur. 7.3.3

4 Investigate controlled substances, their ingredients and associated crime scenes without causing harm or injury. 7.3.4

5 Describe the methods and legal issues of drug testing suspects and arrestees. 7.3.5

6 Prepare forensic toxicology reports for criminal proceedings. 7.3.6

4 **Blood and Fingerprints: Describe the collection, evaluation and legal admissibility of blood and fingerprint evidence.** 7.4

1 Describe the characteristics of blood evidence (e.g., spatter, pooling, location) as they relate to a crime scene. 7.4.1

2 Locate unseen blood evidence at crime scenes. 7.4.2

3 Prepare blood evidence for criminal proceedings. 7.4.3

4 Describe the classification characteristics of fingerprints, palmprints and footprints used in criminal investigations. 7.4.4

5 Collect, develop and preserve latent prints. 7.4.5

6 Compare latent prints with prints on file to identify suspects. 7.4.6

7 Collect and analyze fingerprints using the Automated Fingerprint Information System (AFIS), Web check and other technology systems. 7.4.7

8 Prepare latent print analysis for criminal proceedings. 7.4.8

5 **Financial Crimes: Describe financial crimes and investigation methods.** 7.5

1 Describe the types of financial crimes. 7.5.1

2 Identify common frauds and their targeted populations (e.g., counterfeiting, identify theft, scams, e-mail and telephone fraud). 7.5.2

3 Investigate money laundering operations and the types of crimes it is used to cover up. 7.5.3

4 Interpret financial records using forensic accounting investigative techniques to determine if a crime has occurred. 7.5.4

5 Explain the use of financial forfeitures in criminal cases. 7.5.5

6 Use financial records in criminal proceedings. 7.5.6

6 **Forensic Science: Describe the history and role of the crime laboratory in analyzing forensic evidence and the conclusions that can be drawn through evidence analysis.** 7.6

1 Describe the role of forensic science in solving crimes and providing evidence in criminal cases. 7.6.1

2 Describe the historical development of forensic techniques in use (e.g., fingerprint analysis, deoxyribonucleic acid [DNA] analysis). 7.6.2

3 Interpret and summarize statistics and probability evidence. 7.6.3

4 Identify the possible range of forensic science evidence and data. 7.6.4

5 Draw conclusions from evidence and data. 7.6.5

6 Describe the role of statistical probability in lab results. 7.6.6

7 Forensic Science Specialties and Evidence: Describe the scientific specialties used to analyze forensic evidence in criminal investigations. 7.7

1 Describe forensic anthropology, ballistics, entomology, odontology, pathology, chemistry and engineering and the types of evidence each specialty analyzes. 7.7.1

2 Describe facsimile, plant, toolmark, impression and digital evidence analyzed in forensic investigations. 7.7.2

3 Describe the use of deoxyribonucleic acid (DNA) evidence and its analysis in criminal investigations. 7.7.3

4 Identify and analyze trace evidence used in criminal investigations. 7.7.4

5 Identify evidence that should be submitted for lab analysis and the types of analyses that can be performed. 7.7.5

6 Describe the collection, evaluation and legal admissibility of forensic evidence. 7.7.6

Law Enforcement: Learners apply principles of criminal justice to deter, delay, detect and respond to criminal activity, respond to traffic incidents, enforce laws, protect self and others and use psychological and sociological theories to explain criminal behavior. 8

1 Evolution and Foundations: Describe the history of the American criminal justice system from its origins to modern day practice. 8.1

1 Describe the historical evolution of law enforcement from its early English origins and early American development to its modern structure and technological advancements. 8.1.1

2 Describe the historical development of the correctional system from early European influences to modern practice. 8.1.2

3 Describe the influence of early Roman law, early English law and common law on the development of the American criminal justice system. 8.1.3

4 Explain the interaction of law enforcement, courts and correction from the systems level to the personnel level in criminal justice and juvenile justice. 8.1.4

5 Explain the concept of discretion and describe the discretion allowed to law enforcement, courts and corrections personnel in criminal justice. 8.1.5

2 Use of Force: Apply the use of force continuum to control subjects and situations and maintain safety for all involved. 8.2

1 Explain the continuum of force from less lethal to lethal. 8.2.1

2 Apply techniques for unarmed self-defense. 8.2.2

3 Describe the types of less lethal weapons and explain safe procedures for handling, maintaining and using them. 8.2.3

4 Control subjects using less lethal weapons. 8.2.4

5 Approach subjects in a safe manner. 8.2.5

6 Identify verbal and nonverbal signs of aggression and de-escalate the situation. 8.2.6

7 Control subjects employing basic hand grasp strategies, blocks and releases. 8.2.7

8 Pat down subjects following gender-specific procedures. 8.2.8

9 Restrain the hands and arms of subjects. 8.2.9

10 Describe the different types of firearms encountered in law enforcement. 8.2.10

11 Handle simulated firearms using firearm safety techniques. 8.2.11

12 State the guidelines and restrictions (e.g., situations, levels of force, use of equipment) imposed by federal and state governments related to the use of deadly force. 8.2.12

13 Describe the psychological impact of using deadly force and the symptoms of that impact. 8.2.13

14 Describe the roles law enforcement officers play in critical incident stress debriefing. 8.2.14

15 Explain the legal liabilities associated with providing medical assistance after the use of force. 8.2.15

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3 Traffic Procedures: Enforce traffic laws to respond to traffic-related offenses, control traffic and investigate accidents. 8.3

2 Complete a pre-patrol examination of vehicle and equipment. 8.3.2

1 Describe laws that address emergency vehicle operation. 8.3.1

3 Complete a uniform traffic citation for a traffic violation. 8.3.3

4 Control vehicle and pedestrian traffic using cruiser position, cones, flares, flashlights. 8.3.4

5 Identify traffic offenses using speed monitoring devices, sensory observation and field sobriety tests. 8.3.5

6 Respond to, investigate and document a motor vehicle crash. 8.3.6

7 Investigate a vehicle crash using computations of skid length, speed, impact angles, weather and surface condition coefficients to determine the cause. 8.3.7

8 Conduct vehicle stops for traffic violations, misdemeanors and felonies. 8.3.8

9 Describe when to initiate and terminate pursuits, based on legal and liability issues. 8.3.9

10 Describe control and maneuverability techniques for different speeds and tactics. 8.3.10

4 **Patrols: Conduct patrols to prevent, detect and respond to crime and emergencies.** 8.4

1 Describe the types of patrol and their functions (e.g., preventive, directed, crime mapping, aggressive). 8.4.1

2 Follow relevant law and department protocol for using communication equipment. 8.4.2

3 Maintain situational awareness to identify unusual or abnormal conditions in the environment and in people. 8.4.3

4 Interact with citizens or subjects to acquire information. 8.4.4

5 Respond to requests for service based on the type of call. 8.4.5

6 Identify and interpret gang identifiers. 8.4.6

7 Identify the physical signs, symptoms and paraphernalia of drug use. 8.4.7

8 Manage people in crisis (e.g., individuals with mental and physical disabilities). 8.4.8

9 Control crowds using environmental factors, tools and techniques to maintain order. 8.4.9

10 Describe procedures for maintaining security and safety when arresting, processing, handling and transporting prisoners. 8.4.10

5 **Surveillance and Detection: Describe and use surveillance and detection tools to deter, detect and investigate crime.** 8.5

1 Summarize the types of surveillance tools available to law enforcement, security and public safety personnel (i.e., video surveillance equipment, environmental surveillance equipment). 8.5.1

2 Identify the legal issues involved in conducting surveillance of individuals and suspects. 8.5.2

3 Conduct surveillance of a subject or area to deter or detect crime. 8.5.3

4 Document a surveillance operation for use as evidence. 8.5.4

5 Analyze the legal issues in using surveillance techniques and tools. 8.5.5

6 Describe modern and evolving technology used by law enforcement to prevent and investigate crime. 8.5.6

6 **Crime Prevention: Assist the community in preventing crime using the concepts of deter, delay, detect and deny.** 8.6

1 Collaborate with the community on education initiatives to prevent crime and reduce family violence. 8.6.1

2 Conduct a risk assessment/security survey to identify potential vulnerabilities. 8.6.2

3 Educate the community on using environmental design (e.g., shrubbery, barrier, lock systems, lighting) to mitigate vulnerabilities. 8.6.3

4 Recommend surveillance and detection systems based on benefits and advantages of each. 8.6.4

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7 Behavioral Science: Describe the psychological and sociological theories of criminal behavior. 8.7

1 Evaluate the role that personal values, resources, mental health, substance abuse and disabilities play in conflict. 8.7.1

2 Compare and contrast theories of criminal behavior (e.g., determinism [biological, psychological and sociological foundations], free will [a person chooses to act]). 8.7.2

3 Examine crime trends using data from the Uniform Crime Report or National Victimization Survey. 8.7.3

4 Describe the sociological and psychological impact on the community of crimes against people and property. 8.7.4

5 Explain the relationship of substance abuse to criminal behavior and its effect on communities and the criminal justice system. 8.7.5

6 Critique the concept of victimless crime and draw conclusions on its societal impact. 8.7.6

7 Describe the sociological and psychological factors that contribute to gang culture (e.g., geography). 8.7.7

8 Evaluate and draw conclusions on the impact of crime on victims and perpetrators using the concept of victimology and restorative justice. 8.7.8

9 Explain the use of forensic psychology and criminal profiling in criminal justice. 8.7.9

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8 911 Telecommunication System: Process calls for assistance and dispatch first responders according to protocol. 8.8

1 Interact with first responders and personnel in the field and assist in maintaining safety. 8.8.1

2 Communicate with the media and public. 8.8.2

3 Identify and describe legal and liability issues related to the emergency service telecommunicator (e.g., Federal Communications Commission [FCC] requirements; Title 18, U. S. Code; National Fire Protection Association [NFPA] 1221). 8.8.3

4 Describe the purpose of continuity of operations and disaster planning for 911 telecommunication centers. 8.8.4

5 Manage and prioritize incoming calls for service and recognize calls that require supervisor notification. 8.8.5

6 Communicate concisely with callers based on the situation and the needs of the caller. 8.8.6

7 Manage and identify callers and provide special assistance as needed to callers (e.g., hysterical, suicidal, mental or physical disability). 8.8.7

8 Provide timely and accurate direction to individuals when their lives are in immediate danger following guides and protocols. 8.8.8

9 Differentiate between call transfer and call referral. 8.8.9

10 Document calls for service. 8.8.10

11 Use radio-dispatching techniques and procedures to process a request for emergency services. 8.8.11

12 Use call-processing guidelines for law enforcement, fire and emergency medical service when dispatching. 8.8.12

13 Use law enforcement, fire and emergency medical service terminology. 8.8.13

14 Use geographical information system (GIS) and geographical positioning system (GPS) technology in emergency response operations. 8.8.14

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9 Criminal Law: Analyze and apply concepts of criminal law, procedure and individual rights to the criminal justice system. 8.9

1 Compare and contrast offenses, burden of proof and penalties in the civil, criminal and juvenile justice systems. 8.9.1

2 Compare and contrast constitutional and statutory law and the impact of each on search and seizure, due process and rules of evidence (e.g., exclusionary rule). 8.9.2

3 Explain powers of arrest and detainment. 8.9.3

4 Describe the elements of criminal offenses listed in the Ohio Revised Code (ORC) and how culpable mental states apply to each offense. 8.9.4

5 Describe the legal procedures to conduct a line-up. 8.9.5

6 Describe the legal distinction between interviewing a subject not in custody and interrogating a suspect in custody and the application of the Miranda warning. 8.9.6

7 Identify the requirements prescribed by law to interview juveniles. 8.9.7

8 Describe the stages for processing a suspect from arrest to final case disposition in the adult and juvenile court system. 8.9.8

9 Differentiate between traffic, misdemeanor and felony offenses and penalties. 8.9.9

10 Explain the legal standard and admissibility of a dying declaration. 8.9.10

11 Explain issues of legal admissibility in presenting evidence and testifying. 8.9.11

12 Explain affirmative defenses. 8.9.12

13 Describe and differentiate between jurisdiction and legal authority in law enforcement and private security operations. 8.9.13

14 Describe the impact of local, state and federal laws on private security operations. 8.9.14

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10 Court Systems: Summarize court systems, personnel and processes and how cases move through the criminal justice system. 8.10

1 Describe the role of judges, prosecutors, special prosecutors, defense attorneys and public defenders in criminal proceedings, how they are appointed and the relationships among them. 8.10.1

2 Describe the role and rights of defendants in criminal proceedings and their relationship to other court entities. 8.10.2

3 Describe the rights and responsibilities of victims in all phases of the criminal justice system. 8.10.3

4 Identify and explain court and community based services that support victims of crime. 8.10.4

5 Explain the concept of restorative justice. 8.10.5

6 Describe the responsibilities of a jury and how it is selected. 8.10.6

7 Describe the methods for court appointment of a defense attorney for an indigent defendant. 8.10.7

8 Describe and demonstrate the role and appropriate behavior of law enforcement agents as witnesses in criminal proceedings and their relationships to others involved. 8.10.8

9 Explain the administrative structure of a court and the roles and relationships of support personnel (e.g., recorders, clerks, bailiffs). 8.10.9

10 Describe the use and purpose of bail/bond for releasing defendants prior to trial. 8.10.10

11 Describe the process and reasons for binding a juvenile over to the adult criminal court for trial. 8.10.11

12 Compare and contrast the jurisdiction of local, state and federal courts. 8.10.12

13 Explain the procedures necessary for obtaining arrest and search warrants. 8.10.13

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11 Sentencing: Summarize procedures and legal guidelines for criminal sentencing and other case dispositions and apply those in the criminal justice system. 8.11

1 Differentiate between diversion, jail, prison, probation, parole and community corrections in local, state and federal jurisdictions. 8.11.1

2 Describe sentencing guidelines for criminal convictions (e.g., Truth in Sentencing laws, mandatory minimum sentences, Three Strikes laws, capital punishment). 8.11.2

3 Describe the role of victim impact statements in sentencing. 8.11.3

4 Differentiate between determinate and indeterminate sentencing. 8.11.4

5 Describe the positive and negative effects of plea bargaining and factors that influence it. 8.11.5

6 Analyze disparities in sentencing based on race, gender, religion and sexual orientation. 8.11.6

7 Compare and contrast correctional ideologies (e.g., retribution, deterrence, incapacitation, rehabilitation). 8.11.7

8 Describe the levels of probation and the functions of the probation officer at each level. 8.11.8

9 Describe community-based resources supporting community-based correctional programs. 8.11.9

10 Describe the concept and purpose of restorative justice. 8.11.10