Public Safety II

8701 36 weeks / 280 hours

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Acknowledgments

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Course Description

Suggested Grade Level: 11 or 12
Prerequisites: 8700

Students perform procedures related to law enforcement and firefighting occupations, including learning policing; the role of law; the role of the courts, including juvenile justice; the terror threat; the history and fundamentals of the fire service; fire behavior; building construction; ventilation; salvage, overhaul, and cause of fire; the value of fire prevention and public fire education programs; fire suppression techniques; forcible entry methods; hazardous materials (HAZMAT) standards; and equipment related to firefighting and criminal justice.

Note: Students must be at least 16 years old by the first day of the course offering.

Task Essentials Table

- Tasks/competencies designated by plus icons (⊕) in the left-hand column(s) are essential
- Tasks/competencies designated by empty-circle icons (○) are optional
- Tasks/competencies designated by minus icons (⊖) are omitted
- Tasks marked with an asterisk (*) are sensitive.

<table>
<thead>
<tr>
<th>Task Number</th>
<th>8701</th>
<th>Tasks/Competencies</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Following Criminal Justice and Firefighting Safety Standards</td>
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<tr>
<td>39</td>
<td>☑</td>
<td>Identify classroom safety rules and procedures.</td>
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<td>40</td>
<td>☑</td>
<td>Identify school safety policies and procedures.</td>
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<td>41</td>
<td>☑</td>
<td>Follow general safety procedures.</td>
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<td>42</td>
<td>☑</td>
<td>Identify equipment safety rules and procedures.</td>
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<td>43</td>
<td>☑</td>
<td>Review practices that promote health and wellness.</td>
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<tr>
<td>44</td>
<td>☑</td>
<td>Outline the physical fitness standards for firefighters.</td>
</tr>
<tr>
<td>45</td>
<td>☑</td>
<td>Define risk management.</td>
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<tr>
<td>46</td>
<td>☑</td>
<td>Identify common causes of death in the fire service.</td>
</tr>
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<td>47</td>
<td>☑</td>
<td>Identify the features of conducting an organized rapid escape.</td>
</tr>
<tr>
<td>48</td>
<td>☑</td>
<td>Identify procedures to follow when an entrapment occurs.</td>
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<tr>
<td>49</td>
<td>☑</td>
<td>Identify the importance of NFPA standards to the fire service.</td>
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</table>

**CRIMINAL JUSTICE**

Understanding the Rule of Law

| 50          | ☑    | Differentiate among criminal, civil, and case law. |
| 51          | ☑    | Explain rules of evidence. |

Exploring Policing

| 52          | ☑    | Describe techniques for vehicle stops. |
| 53          | ☑    | Identify high-risk situations an officer may face. |
| 54          | ☑    | Explain crime prevention. |

Exploring the Courts

| 55          | ☑    | Describe the roles of the judge, bailiff, prosecuting attorney, defense attorney, victim/witness advocate, and jury. |
| 56          | ☑    | Describe professional demeanor in court. |
| 57          | ☑    | Describe the sentencing process. |

Understanding Juvenile Justice

| 58          | ☑    | Describe the scope of authority of the Juvenile and Domestic Relations Court of Virginia. |
| 59          | ☑    | Identify constitutional guarantees affecting juveniles taken into custody. |
| 60          | ☑    | Outline the stages of a typical juvenile case from arrest through adjudication. |
| 61          | ☑    | Describe dispositions available through Juvenile and Domestic Relations Court. |
| 62          | ☑    | Explain procedures for handling juveniles’ records. |

Exploring the Terror Threat

| 63          | ☑    | Describe the history of terrorism. |
| 64          | ☑    | Distinguish between international and domestic terrorism. |
| 65          | ☑    | Describe safety precautions for first responders to mass-casualty incidents. |
| 66          | ☑    | Describe the roles of incident command. |

**FIREFIGHTING**

Introducing the Fire Service

<p>| 67          | ☑    | Write a mission statement for the fire service. |</p>
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</thead>
<tbody>
<tr>
<td>68</td>
<td>☑</td>
<td>Describe the effects of the Civil Rights Act of 1991 and the Americans with Disabilities Act (ADA) on the employment and supervision of firefighters.</td>
</tr>
<tr>
<td>69</td>
<td>☑</td>
<td>List rules and laws that regulate the fire service.</td>
</tr>
<tr>
<td>70</td>
<td>☑</td>
<td>Identify standard operating procedures (SOPs) and standard operating guides (SOGs) in the fire service.</td>
</tr>
<tr>
<td>71</td>
<td>☑</td>
<td>Develop an organizational chart for NIMS.</td>
</tr>
<tr>
<td>72</td>
<td>☑</td>
<td>List the allied agencies that assist with fire department operations.</td>
</tr>
<tr>
<td>73</td>
<td>☑</td>
<td>Describe employee assistance programs.</td>
</tr>
<tr>
<td>74</td>
<td>☑</td>
<td>Compare engine, truck, and rescue/squad company operations and responsibilities.</td>
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</table>

**Understanding Fire Behavior**

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<thead>
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<tbody>
<tr>
<td>75</td>
<td>☑</td>
<td>Define fire and its characteristics.</td>
</tr>
<tr>
<td>76</td>
<td>☑</td>
<td>Describe the fire tetrahedron and its importance in the suppression of fire.</td>
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<tr>
<td>77</td>
<td>☑</td>
<td>Identify sources of heat energy.</td>
</tr>
<tr>
<td>78</td>
<td>☑</td>
<td>Describe the burning process, the transmission of heat, and the products of combustion.</td>
</tr>
<tr>
<td>79</td>
<td>☑</td>
<td>Explain key terms related to fire behavior.</td>
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</tbody>
</table>

**Understanding Building Construction**

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<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>☑</td>
<td>Describe building construction methods and materials.</td>
</tr>
<tr>
<td>81</td>
<td>☑</td>
<td>Define the five types of building construction and their associated hazards.</td>
</tr>
<tr>
<td>82</td>
<td>☑</td>
<td>Predict a fire’s growth and development according to type of building construction.</td>
</tr>
<tr>
<td>83</td>
<td>☑</td>
<td>Identify indications of potential building collapse and collapse zone evacuation procedures.</td>
</tr>
</tbody>
</table>

**Using Water Supply, Hoses, and Nozzles**

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<th>Tasks/Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>☑</td>
<td>List causes of friction loss in water mains.</td>
</tr>
<tr>
<td>85</td>
<td>☑</td>
<td>Compare wet-barrel and dry-barrel hydrants.</td>
</tr>
</tbody>
</table>

**Practicing Fire Suppression Techniques**

<table>
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<tr>
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<th>Tasks/Competencies</th>
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</thead>
<tbody>
<tr>
<td>86</td>
<td>☑</td>
<td>Describe fire-extinguishment theory.</td>
</tr>
<tr>
<td>87</td>
<td>☑</td>
<td>Outline fire-suppression techniques and measures.</td>
</tr>
<tr>
<td>88</td>
<td>☑</td>
<td>Describe the classifications of fire and the corresponding extinguishment methods.</td>
</tr>
<tr>
<td>89</td>
<td>☑</td>
<td>Identify types of foam for fire suppression.</td>
</tr>
<tr>
<td>90</td>
<td>☑</td>
<td>Demonstrate the suppression of Class A and Class B fires, using hose line.</td>
</tr>
<tr>
<td>91</td>
<td>☑</td>
<td>Demonstrate the suppression of Class A, B, and C fires, using portable fire extinguishers.</td>
</tr>
<tr>
<td>92</td>
<td>☑</td>
<td>Identify the extinguishment theory for fighting wildland fires.</td>
</tr>
<tr>
<td>93</td>
<td>☑</td>
<td>Identify the types and ratings of portable fire extinguishers.</td>
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</tbody>
</table>

**Using Ladders**

<table>
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<th>Tasks/Competencies</th>
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</thead>
<tbody>
<tr>
<td>94</td>
<td>☑</td>
<td>Identify ladder types, parts, and safety features.</td>
</tr>
<tr>
<td>Task Number</td>
<td>8701</td>
<td>Tasks/Competencies</td>
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<tr>
<td>95</td>
<td>☐</td>
<td>Perform ladder carries.</td>
</tr>
<tr>
<td>96</td>
<td>☐</td>
<td>Perform ladder raises.</td>
</tr>
<tr>
<td>97</td>
<td>☐</td>
<td>Describe maintenance, cleaning, and inspection procedures for ladders.</td>
</tr>
<tr>
<td>Using Ropes</td>
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<td></td>
</tr>
<tr>
<td>98</td>
<td>☐</td>
<td>Differentiate between types of ropes and knots.</td>
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<tr>
<td>99</td>
<td>☐</td>
<td>Demonstrate the types of knots required for hoisting or securing.</td>
</tr>
<tr>
<td>100</td>
<td>☐</td>
<td>Describe maintenance, cleaning, and inspection functions for life-safety and utility rope.</td>
</tr>
<tr>
<td>Following Forcible Entry Procedures</td>
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</tr>
<tr>
<td>101</td>
<td>☐</td>
<td>Identify types of forcible entry tools.</td>
</tr>
<tr>
<td>102</td>
<td>☐</td>
<td>Demonstrate methods for forcing windows and doors.</td>
</tr>
<tr>
<td>103</td>
<td>☐</td>
<td>Describe maintenance, cleaning, and inspection functions for forcible entry tools.</td>
</tr>
<tr>
<td>104</td>
<td>☐</td>
<td>Describe methods, components, and considerations of forcible entry.</td>
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<tr>
<td>Understanding Ventilation</td>
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<tr>
<td>105</td>
<td>☐</td>
<td>Describe the need for ventilation at a fire scene.</td>
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<tr>
<td>106</td>
<td>☐</td>
<td>Identify the types of ventilation.</td>
</tr>
<tr>
<td>107</td>
<td>☐</td>
<td>Demonstrate methods for creating horizontal, vertical, mechanical, and hydraulic ventilation.</td>
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<tr>
<td>Determining Salvage, Overhaul, and Cause of Fire</td>
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</tr>
<tr>
<td>108</td>
<td>☐</td>
<td>Describe salvage and overhaul needs and techniques.</td>
</tr>
<tr>
<td>109</td>
<td>☐</td>
<td>Describe the need for evidence preservation.</td>
</tr>
<tr>
<td>110</td>
<td>☐</td>
<td>Identify methods for legally securing a building after emergency operations are complete.</td>
</tr>
<tr>
<td>111</td>
<td>☐</td>
<td>Demonstrate use of salvage covers to protect property.</td>
</tr>
<tr>
<td>112</td>
<td>☐</td>
<td>Describe maintenance, cleaning, and inspection functions for salvage and overhaul.</td>
</tr>
<tr>
<td>Adhering to Hazardous Materials (HAZMAT) Standards</td>
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</tr>
<tr>
<td>113</td>
<td>☐</td>
<td>Identify basic HAZMAT standards and resources for handling an incident.</td>
</tr>
<tr>
<td>114</td>
<td>☐</td>
<td>Identify hazardous materials that may be involved in terrorist attacks.</td>
</tr>
<tr>
<td>115</td>
<td>☐</td>
<td>Describe procedures for responding to a terrorist attack.</td>
</tr>
<tr>
<td>Addressing Fire Prevention and Public Fire Education</td>
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</tr>
<tr>
<td>116</td>
<td>☐</td>
<td>Deliver a fire-safety education presentation.</td>
</tr>
<tr>
<td>117</td>
<td>☐</td>
<td>Research NFPA certification options and regional education opportunities.</td>
</tr>
</tbody>
</table>

Legend: ☐Essential ☐Non-essential ☐Omitted

**Curriculum Framework**
Following Criminal Justice and Firefighting Safety Standards

Task Number 39

Identify classroom safety rules and procedures.

Definition

Identification should include

- refraining from rough or noisy behavior
- reflecting school safety pledge/code/requirements
- adhering to school rules and regulations
- passing a safety test.

Process/Skill Questions

- Why is orderliness important to public safety professionals?
- Why is it important to set a positive example for others?
- What personal characteristics can affect education and learning?

Task Number 40

Identify school safety policies and procedures.

Definition

Identification should include locating and reviewing the school safety/policy handbook and complying with policies and procedures.

Process/Skill Questions

- What is the importance of complying with school regulations?
- Why are school policies created, and what are the benefits of abiding by them?
- What are students’ rights and responsibilities, and how are they established?
- What would happen if there were no school rules?

Task Number 41
Follow general safety procedures.

Definition

Following safety procedures should include

- handling of all weapons and ammunition
- handling of suspected narcotics
- handling of transportation/patrol vehicles (e.g., cars, boats, bicycles, motorcycles, helicopters, planes, and prisoner transport vans)
- using personal protective equipment (PPE) (e.g., gloves, masks, face shields)
- handling of the four methods of pathogen contamination
  - injection
  - ingestion
  - inhalation
  - skin contact
- discussing the responsibility of the student when hearing of potential danger or threats to students or the school.

Process/Skill Questions

- Why is it important to handle weapons according to established standards?
- What are the medical/legal issues involving bloodborne pathogens or infectious diseases?
- What are the medical/legal issues involving the handling of narcotics?
- Why is it important to understand basic safety rules?
- Why should the student go to an adult with his/her concerns as soon as possible?

Task Number 42

Identify equipment safety rules and procedures.

Definition

Identification of safety rules and procedures should be applied to equipment common to public safety trades, including, but not limited to, handcuffs, training equipment, and issued equipment.

Process/Skill Questions

- Why is proper use and care of equipment a basic part of a public safety professional’s training?
- What are some possible consequences of improper use and care of equipment?

Task Number 43
Review practices that promote health and wellness.

Definition

Review should include

- methods for preventing common injuries, such as those caused by slips and falls, improper lifting techniques, improper use of tools or equipment, overexertion, and fatigue
- methods for maintaining physical fitness and a healthy diet
- stress management
- mental and emotional health awareness.

Process/Skill Questions

- What are the common causes for health issues among public safety professionals?
- What are techniques for seeking help for one’s mental and emotional health?
- What resources are available to criminal justice professionals to promote their physical, mental, and emotional health?

Task Number 44

Outline the physical fitness standards for firefighters.

Definition

Outline should include

- an annual health screening
- a fitness program
- nutritional education
- knowledge regarding the effects of drugs (both legal and illegal) and alcohol on physical performance.

Teacher resources:
Critical Incident Stress Management (CISM)
Mental Health First Aid for Fire and Emergency Medical Services (EMS)

Process/Skill Questions

- How does nutrition affect physical fitness?
- Where can information be found about maintaining well-being?
- Why are stretching, balance, and flexibility important in maintaining physical fitness?
- What is an annual health screening, and what are the benefits?
- What are some methods of coping with the loss of fellow firefighters?
Task Number 45

Define risk management.

Definition

Definition should include

- risk management as the process of minimizing the chance, degree, or probability of damage, loss, or injury
- the situations in which a public safety professional may or may not risk his/her own life for the protection and safety of others or of property
- a description of weighted risk
- the risk management plan as a requirement of the National Fire Prevention Association (NFPA) and local jurisdiction.

Process/Skill Questions

- What could occur if a risk is too great?
- What is the relationship between risk and heroism?
- What can force a public safety professional to withdraw or terminate an operation?
- What is an accident? What is a preventable vs. nonpreventable accident?

Task Number 46

Identify common causes of death in the fire service.

Definition

Identification should include

- cancer
- heart attack (the most common) and stroke (stress)
- falls
- falling objects
- asphyxiation
- burns
- equipment failure
- exposure to chemicals.

Teacher resource:
Fire Fighter Cancer Foundation
International Association of Fire Fighters (IAFF) Cancer Awareness and Prevention
Process/Skill Questions

- What is the most common killer on the job?
- How can firefighters increase their chances of survival?
- What can be done to reduce the chances of death due to equipment failure?

Task Number 47

Identify the features of conducting an organized rapid escape.

Definition

Identification should include

- pre-planning
- reporting the need
- acknowledging the signal
- leaving behind all equipment
- escaping from a room, roof, or balcony
- using self-rescue
- using a ladder to escape
- reporting a successful escape.

Process/Skill Questions

- What is preplanning?
- What situations would require a rapid escape?
- Why is it important to get a personal accountability report (PAR) after a rapid escape?

Task Number 48

Identify procedures to follow when an entrapment occurs.

Definition

Identification should include

- signaling for help
- signaling for help/calling a Mayday
- assessing the situation (i.e., injuries, entrapment, immediate danger)
- assessing the condition of equipment and self-contained breathing apparatus (SCBA)
- assessing self-extrication potential
• assessing remaining breathing time.

Process/Skill Questions

• Why is it imperative to remain calm in an entrapment situation?
• What are ways to signal for help?
• What is the local jurisdiction’s policy on calling/recognizing a Mayday?
• What is LUNAR?

Task Number 49

Identify the importance of NFPA standards to the fire service.

Definition

Identification should include

• defining NFPA
• defining the organization’s objectives (i.e., to provide educational and performance guidelines to enhance uniform training).

Process/Skill Questions

• Why did the NFPA create standards?
• Why do NFPA standards need to be followed?
• Why do NFPA standards take precedence over local requirements?
• What would be required for a locality to fully adopt NFPA standards?

CRIMINAL JUSTICE

Understanding the Rule of Law

Task Number 50

Differentiate among criminal, civil, and case law.
**Definition**

Differentiation should include

- **criminal law**
  - status offenses
  - common law and statutory law
  - spirit of the law and letter of the law
  - standard of proof

- **civil law**
  - tort
  - breach of contract
  - standard of proof

- **case law**
  - precedents
  - decisions affecting statutory law.

**Process/Skill Questions**

- What are the differences between common law and statutory law?
- What influence do the use of the terms spirit of the law and letter of the law have on public relations?
- What is a precedent and how does it affect and/or clarify statutory law?
- What is the difference between beyond a reasonable doubt and preponderance of evidence?
- What category of law gives a criminal justice professional his/her authority?
- How does one differentiate between real and personal property?

**Task Number 51**

**Explain rules of evidence.**

**Definition**

Explanation should include

- definition of *evidence, material evidence, chain of evidence, and rules of evidence*
- importance of maintaining the chain of evidence from the point of seizure through trial
- the collection, tagging, preservation, and transportation of evidence
- reasons for excluding evidence at a trial
- the meaning of hearsay evidence and its admissibility at a trial.

**Process/Skill Questions**

- What is the exclusionary rule?
• What is hearsay evidence?
• What does *chain of evidence* mean?
• What are the consequences of not correctly preserving and maintaining the chain of evidence?

**Exploring Policing**

**Task Number 52**

**Describe techniques for vehicle stops.**

**Definition**

Description should include

- the three types of vehicle stops: traffic, investigative, and high-risk (i.e., felony)
- safety precautions related to vehicle stops
- the importance of radio and written communication during vehicle stops
- procedures for stopping a vehicle
- maintenance of courteous authority by the officer during vehicle stops
- the general principles of felony stops.

**Process/Skill Questions**

- Why is a citizen’s perception of law enforcement often based on an officer’s behavior during a traffic stop?
- What are the three types of vehicle stops?
- What safety precautions should be taken by the officer during a vehicle stop?
- Whose safety is an officer responsible for during any vehicle stop?

**Task Number 53**

**Identify high-risk situations an officer may face.**

**Definition**

Identification should include

- potential high-risk situations (e.g., crimes in progress, alarms, domestic disputes, disasters, and ambush)
• factors for officer survival (e.g., positive attitude, anticipation of danger, plan of action, good physical condition, maintenance of equipment)
• importance of effective initial response
• procedures for handling various high-risk situations.

Process/Skill Questions

• What are examples of crimes in progress that are inherently dangerous?
• What is the importance of mental preparation and preplanning in handling high-risk situations?
• What are the current statistics on officer injuries and the ways they acquire those injuries?
• How and when do most assaults against law enforcement occur?
• What are some pre-assaultive indicators?

Task Number 54

Explain crime prevention.

Definition

Explanation should include

• defining crime prevention, anticipation, recognition, appraisal, and action
• differentiating between the active and reactive roles of the police in crime prevention
• discussing desired results of anticipating crime through crime analysis
• defining the reasons for not reporting some crimes
• implementing a plan of action for crime prevention by cooperation with the community
• implementing a plan to reduce the opportunity and risks for a crime to be committed
• defining the crime triangle—desire, ability, and opportunity
• describing crime prevention through environmental design (CPTED) and CPTED methods.

Process/Skill Questions

• What is the importance of proactive policing?
• Why are the three factors in the crime triangle important to crime prevention?
• How can the community aid police in preventing crime?
• What methods of crime prevention are used in area businesses?
• What are the typical job descriptions of loss prevention officers and security officers?
• Why is CPTED becoming an accepted method for crime prevention?
• What are legal methods for deterring shoplifters?

Exploring the Courts
Task Number 55

Describe the roles of the judge, bailiff, prosecuting attorney, defense attorney, victim/witness advocate, and jury.

Definition

Description of the roles should include the

- judge’s duties at each level of the court system
- bailiff’s duties in court
- responsibilities of the prosecuting attorney (commonwealth's attorney)
- right to counsel (*Gideon v. Wainwright*) and the responsibilities of defense attorney
- role of the victim/witness advocate
- role and use of plea bargaining in the legal process
- duties of civil, criminal, and grand juries
- responsibilities of an impartial jury.

Process/Skill Questions

- Who is the chief decision-maker in the courtroom on the rules of criminal procedures?
- What is meant when we say that the court system is an adversarial system?
- What does it mean to be tried by an impartial jury?
- What are the different types of defense attorneys, and what are the advantages/disadvantages of each?

Task Number 56

Describe professional demeanor in court.

Definition

Description should include the

- standards for appearance and dress for officers testifying in court
- language factors that influence the image of the police officer on the stand
- importance of body language
- preparation for court appearance.

Process/Skill Questions
• Why is it important to be professional on the witness stand?
• How should a criminal justice professional prepare for a court appearance?

**Task Number 57**

**Describe the sentencing process.**

**Definition**

Description should include

• the probation officer’s role in the pre-sentence investigation
• the judge’s discretion in sentencing and statutory mandates
• types of sentencing (i.e., withhold findings, suspended sentence, incarceration, and community service)
• concurrent sentence vs. consecutive sentence
• the goals of sentencing (e.g., retribution, rehabilitation, incapacitation, deterrence, restoration)
• capital crimes and the death penalty.

**Process/Skill Questions**

• What are the advantages and disadvantages in the use of the death penalty for capital crimes?
• What are some of the correctional strategies used to meet the various sentencing goals?
• What is the purpose of establishing sentencing guidelines?
• What crimes constitute capital punishment in Virginia?
• What are the types of sentences offered in Virginia?

**Understanding Juvenile Justice**

**Task Number 58**

**Describe the scope of authority of the Juvenile and Domestic Relations Court of Virginia.**

**Definition**

Description should include
• definition of juvenile
• classifications of juveniles who fall under the juvenile court system
• the qualifications for adjudication as a juvenile and for trial as an adult (certification hearing)
• alternatives to disposition available to judges.

Process/Skill Questions

• What is the purpose of juvenile diversion programs?
• Why do judges have so much authority in dealing with juveniles?
• How does a judge determine a disposition for a particular juvenile?
• What effect does certification to adult court have on a juvenile?

Task Number 59

Identify constitutional guarantees affecting juveniles taken into custody.

Definition

Identification should include

• case law that relates to juveniles taken into custody (in re Gault)
• definition of parens patriae
• the due process rights of adults vs. those of juveniles
• the benefits of adversarial, formal trials as well as the informal hearings of juveniles as they relate to the constitutional rights of the defendant.

Process/Skill Questions

• Why do juveniles and adults have different due process rights?
• How do due process rights of juveniles and adults differ?
• What landmark Supreme Court cases have had an influence on the concept of parens patriae?
• What rights do juveniles have in a custodial setting?
• How does the concept of parens patriae still exist today?

Task Number 60

Outline the stages of a typical juvenile case from arrest through adjudication.

Definition
Outline should include the

- types of arrest (i.e., petition, detention order)
- roles of the juvenile intake officer and the probation officer
- purpose and possible results of an intake interview
- details of a detention hearing and/or transfer hearing
- facilities operated by the Department of Corrections for juvenile offenders.

Teacher resource: Virginia Rules, Office of the Virginia Attorney General

Process/Skill Questions

- When is it necessary for an officer to obtain a warrant instead of a petition for a juvenile?
- What discretionary decisions can police officers make with regard to juveniles?
- What are the roles of the intake officer and probation officer in a juvenile’s arrest?
- Who can file a petition against a juvenile?

Task Number 61

Describe dispositions available through Juvenile and Domestic Relations Court.

Definition

Description should include

- foster care
- shelter care
- group home
- detention center
- learning center
- jail
- community service
- house arrest or electronic monitoring
- finding of not innocent
- probation.

Process/Skill Questions

- Why are there so many alternatives for the disposition of juvenile cases?
- What is the difference between a group home and a detention center?
- Why is community service seen as a viable alternative to jail time?
- How do juvenile correctional facilities differ from those of adults?
- What is the purpose of the juvenile court as compared to adult court?
Task Number 62

Explain procedures for handling juveniles’ records.

Definition

Explanation should include

- restrictions on all documentation pertaining to the juvenile, including fingerprinting and photographing
- Virginia's requirements for filing juvenile records
- expunging and sealing of juvenile court records for employment or court actions.

Process/Skill Questions

- What influence does a juvenile record have on future employment in the field of criminal justice?
- When and why are juvenile records sealed?
- What is the process for expunging and sealing juvenile records?
- What are the consequences of a juvenile record for any individual?

Exploring the Terror Threat

Task Number 63

Describe the history of terrorism.

Definition

Description should include

- definitions of domestic terrorism and international terrorism
- differentiation between hate crimes and terrorism
- major terrorist events
- government responses to terrorist acts.

Process/Skill Questions

- Why is it important to study the history of terrorism?
- What are the goals of terrorism?
- What are the implications of anti-terrorism laws?
• What terrorist acts occurred in the United States before 9/11?

Task Number 64

Distinguish between international and domestic terrorism.

Definition

Distinction should include

• types of terrorist groups (e.g., environmental, religious, political)
• examples of terrorist groups, domestic and international
• types of weapons of mass destruction (e.g., biological, nuclear, incendiary, chemical, explosive, mechanical).

Process/Skill Questions

• How does one differentiate domestic terrorism from international terrorism?
• What conflicts could be encountered when combating terrorism?
• Why is it important for law enforcement professionals to know the different types of terrorist groups?

Task Number 65

Describe safety precautions for first responders to mass-casualty incidents.

Definition

Description should include

• following pre-scene arrival procedures
• assessing signs of dangerous or hazardous situations at the scene of an accident
• rescuing and caring for the injured, both first responders and citizens
• using emergency evacuation procedures, if necessary
• protecting evidence at the scene of an accident
• initiating interviews of witnesses at the scene
• debriefing for first responders.

Process/Skill Questions

• How are hazards determined?
• How can the need for a hazardous materials response be determined?
• What resources are available to protect the first responder?

Task Number 66

Describe the roles of incident command.

Definition

Description should include

• explaining the responsibilities in the incident management system
• initiating incident command (i.e., officer on duty in the jurisdiction)
• working within the incident management system.


Process/Skill Questions

• Who activates incident command?
• What training can prepare one for the stress of a mass-casualty incident?
• How is inter-agency cooperation important when handling a mass-casualty incident?

FIREFIGHTING

Introducing the Fire Service

Task Number 67

Write a mission statement for the fire service.

Definition

Writing should demonstrate attention to grammar and mechanics and should include

• area and population of service
• chief services
• philosophy, values, priorities, and goals
• strengths
• public image
• concern for employees.

Process/Skill Questions

• What is a mission statement?
• What role does the mission statement play for the firefighter and for the community?
• Why is it important that values represented in the mission statement remain secular?
• Why is it important that the mission statement reflect goodwill toward the community?
• What is the local jurisdiction’s mission statement?

Task Number 68

Describe the effects of the Civil Rights Act of 1991 and the Americans with Disabilities Act (ADA) on the employment and supervision of firefighters.

Definition

Description should include

• the background of each legislation
• the effects of ADA on applicants and employers (i.e., to prevent discrimination).

Process/Skill Questions

• What physical disabilities could prevent an individual from being an effective firefighter?
• What are some hiring restrictions the fire service imposes?
• What jobs in the fire service are open to applicants with physical disabilities?
• What is the Family Medical Leave Act (FMLA), and who is affected by it?

Task Number 69

List rules and laws that regulate the fire service.

Definition

• NFPA (standards)
• Occupational Safety and Health Agency (OSHA) (regulatory agency)
• ADA (law)
• local (departmental) rules
• international fire and building codes
• United States Environmental Protection Agency (EPA).

Process/Skill Questions

• What is OSHA’s primary objective as an organization?
• Why is it important to have a building code?
• What is the EPA’s primary objective as an organization?

Task Number 70

Identify standard operating procedures (SOPs) and standard operating guides (SOGs) in the fire service.

Definition

Identification of SOP and SOG topics should include

• the who, what, when, where, and how of a task
• the procedures for firefighter safety
• the breakdown of complicated procedures
• comprehensive firefighter duties
• the importance of setting a review and revision schedule (e.g., at least once every three years).

Process/Skill Questions

• How often are SOPs/SOGs reviewed and why?
• What purpose do SOPs/SOGs serve?

Task Number 71

Develop an organizational chart for NIMS.

Definition

Development should include symbolic references to

• modular organization
• integrated communications
• consolidated incident action plans
• span of control.

Other functional areas may include
- command
- operations
- staging
- planning
- finance administration
- logistics
- other command staff positions.

Process/Skill Questions

- What purpose does the organizational chart serve?
- What are some different models of NIMS?
- How can NIMS be used in every incident from major to minor?

Task Number 72

List the allied agencies that assist with fire department operations.

Definition

List should include

- law enforcement
- EMS
- state and local agencies, such as
  - Virginia Department of Emergency Management (VDEM)
  - Virginia Department of Fire Prevention (VDFP)
  - Virginia Office of Emergency Medical Services (VAOEMS)
- Department of Homeland Security (DHS) and FEMA
- EPA
- public works
- utility companies
- private businesses
- American Red Cross
- nonprofit organizations.

Process/Skill Questions

- What resources can be shared between agencies?
- What role has the fire service played in recent national incidents?
- Who in Virginia provides coordination for the state’s response to an emergency?

Task Number 73
Describe employee assistance programs.

Definition

Description should include services for

- drug and alcohol dependence
- depression
- worker relationships
- job stress
- financial well-being
- tobacco/vapes cessation.

Process/Skill Questions

- When should an employee ask for assistance?
- What laws protect employees who ask for assistance?
- What effect may random drug testing have on employees?

Task Number 74

Compare engine, truck, and rescue/squad company operations and responsibilities.

Definition

Comparison should include the

- engine company
  - secures the water source
  - deploys hand lines
  - suppresses fire
  - acts as the rapid intervention team/crew (RIT/RIC) operations
  - may perform truck and squad operations
- truck company
  - performs forcible entry
  - performs ventilation operations
  - deploys ladders
  - performs salvage/overhaul
  - performs search and rescue
- rescue/squad company
  - conducts search and rescue
  - conducts specialized rescue (e.g., trench, high angle)
  - conducts vehicle extrication.
Process/Skill Questions

- Who fills the role of a truck company when a locality lacks an aerial device?
- What additional training might be required when transferring departments?
- How does the two in/two out rule affect staffing?

Understanding Fire Behavior

Task Number 75

Define fire and its characteristics.

Definition

Definition should include the concepts that

- fire/burning/combustion is a simple chemical/chain reaction, the effect of which is rapid persistent chemical change that releases heat and light
- fire is often accompanied by a visible flame.

Process/Skill Questions

- How has the perception of fire changed throughout history?
- How can one alter the chemical reaction that causes fire?
- How does fire naturally affect the geologic evolution of the planet?

Task Number 76

Describe the fire tetrahedron and its importance in the suppression of fire.

Definition

Description should include the four components of fire:

- Heat
- Fuel
- Oxygen
- Chemical/chain reaction
Process/Skill Questions

• Why did the symbolic representation of fire change from the fire triangle to the fire tetrahedron?
• What happens when one of the four elements is removed from the tetrahedron?
• What is the most abundant natural gas that contributes to combustion?

Task Number 77

Identify sources of heat energy.

Definition
Identification should include

• chemical
• electrical
• mechanical
• nuclear.

Process/Skill Questions

• Where is nuclear energy used?
• What are some manifestations/applications of electrical heat energy?
• What are some manifestations/applications of chemical heat energy?

Task Number 78

Describe the burning process, the transmission of heat, and the products of combustion.

Definition
Description of the burning process should include

• oxidation
• pyrolysis
• vaporization.

Description of heat transmission should include

• conduction
• convection
• radiation.

Description of the products of combustion should include

• smoke
• gases (toxic)
• heat release
• light.

Process/Skill Questions

• What are the effects of fire on iron?
• How is heat energy best transported from one location to the next?
• What makes a flame blue? What makes a flame white?

Task Number 79

Explain key terms related to fire behavior.

Definition

Explanation should include

• vapor density
• flammable range
• specific gravity
• backdraft
• smoke explosion
• boiling, liquid, expanding, vapor, explosion (BLEVE)
• stages of fire (i.e., ignition, growth, peak, decay)
• endothermic and exothermic reactions
• flashover
• rollover
• thermal layering
• ignition temperature
• lower and upper exclusive limits
• classes of fire (i.e., A–D/K)
• temperature measurements (e.g., Fahrenheit, Celsius, British Thermal Units [BTUs])
• states of matter (e.g., solid, liquid, gas).

Process/Skill Questions

• Why is it important to understand the temperature at which elements change state?
• What effects does heat have on steam production?
• What are some examples of endothermic and exothermic reactions?
What do chemical suffixes (e.g., -ines, -ates, and -ides) indicate about the nature of chemicals, their composition, and how to extinguish the fires with which they are associated?

**Understanding Building Construction**

**Task Number 80**

**Describe building construction methods and materials.**

**Definition**

Description should include

- beam construction and connection points
- column construction and connection points
- wall construction and connection points.

Description of materials should include

- wood
- steel
- concrete
- masonry
- composites.

**Process/Skill Questions**

- Why is it important for firefighters to be familiar with building materials?
- What is the difference between a load-bearing wall and a non-load-bearing wall?
- How does fire affect building construction and connection points?

**Task Number 81**

**Define the five types of building construction and their associated hazards.**

**Definition**

Definition should include
<table>
<thead>
<tr>
<th>Type of Building Construction</th>
<th>Associated Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I–fire-resistive</td>
<td>loading, or the weight of building materials or objects in a building</td>
</tr>
<tr>
<td>Type II–noncombustible</td>
<td>rapid roof failure due to lightweight steel construction and loading</td>
</tr>
<tr>
<td>Type III–ordinary</td>
<td>age of the building</td>
</tr>
<tr>
<td>Type IV–heavy timber</td>
<td>fire cuts</td>
</tr>
<tr>
<td>Type V–wood frame/lightweight</td>
<td>balloon or platform construction, including fire stopping</td>
</tr>
</tbody>
</table>

**Process/Skill Questions**

- What types of building construction are found in the local area?
- What are the potential hazards with the five types of construction, and how do they affect firefighting efforts?
- What are the hazards associated with lightweight truss roofs?

**Task Number 82**  

**Predict a fire’s growth and development according to type of building construction.**

**Definition**

Prediction should include identifying

- typical hazards associated with occupancy usage (e.g., residential, commercial, educational, business, industrial)
- roof construction (e.g., hip, gable, gambrel, mansard, butterfly, shed, intersecting, flat, arched/bowstring)
- other construction features (e.g., parapet walls, stairs, void spaces, windows).

**Process/Skill Questions**

- How do suppression efforts in balloon-frame construction differ from those in platform construction?
- What is fire load?
- What is void space?

**Task Number 83**
Identify indications of potential building collapse and collapse zone evacuation procedures.

Definition

Identification should include

- overall age and condition of the building
- deterioration of mortar joints and masonry
- cracks
- signs of building repair
- large open spans
- bulging and bowing walls
- sagging floors
- abandoned buildings
- large volume of fire
- long-duration firefighting operations
- smoke coming from cracks in walls
- dark smoke coming from truss roof or floor spaces
- multiple fires in the same building or damage from previous fires.

Evacuation procedures should include

- identifying collapse zone, based on 1 1/2 times the area of the building height
- searching the building for personnel
- completing evacuation, according to departmental/company SOPs and SOGs.

Process/Skill Questions

- What is a collapse zone?
- What are the indications of a possible building collapse?
- What are emergency evacuation procedures? When are they necessary?

Using Water Supply, Hoses, and Nozzles

Task Number 84

List causes of friction loss in water mains.

Definition
List should include

- damaged valves
- trash and/or debris
- sediment build up/encrustations.

Process/Skill Questions

- What is friction loss?
- How can a firefighter prevent friction loss?
- How are static, residual, and flow pressures determined?

Task Number 85

**Compare wet-barrel and dry-barrel hydrants.**

**Definition**

Comparison should include

- wet-barrel hydrant
  - has water in the barrel up to the valves of each outlet
  - is used in areas that are not subject to freezing temperatures
  - is controlled by independent valves that allow for additional connection without main shutdown
- dry-barrel hydrant
  - is used in climates with freezing temperatures
  - is controlled by valve at the base that requires main shutdown to add connections.

Process/Skill Questions

- What climates require wet-barrel hydrants?
- Where are dry-barrel hydrants located?
- What types of hydrants are present locally?

**Practicing Fire Suppression Techniques**

**Task Number 86**

**Describe fire-extinguishment theory.**
Definition

Description should include the removal of heat, fuel, oxygen, or the continuous chemical reaction.

Process/Skill Questions

- What factors determine how a fire should be controlled?
- What were the tragic events of the Great Chicago Fire? When did it occur?
- What is meant by thermal layering of gases?

Task Number 87

Outline fire-suppression techniques and measures.

Definition

Outline should include

- locating the fire and determining its extent
- developing a plan of attack
- developing a mode of attack
  - offensive
  - defensive
  - transitional
- determining the method of attack
  - direct
  - indirect
  - transitional.

Other considerations should include

- rescue, exposures, confinement, extinguishment, and overhaul (RECEO)
- vent, enter, search (VES)
- rescue, fire control, and property conservation
- rescue, exposures, ventilation, attack, and salvage (REVAS)
- factors that affect the selection of fire stream, including
  - proper stream type
  - stream size
  - stream placement
  - timing
  - water supply or quantity of water
  - stream reach
  - mobility needs
  - tactics required
Process/Skill Questions

- What are the responsibilities of the first and second engine companies to arrive at the scene of a fire?
- What are some of the hazards involved with modern vehicle fires?
- What factors might affect arrival time after a call is made?

Task Number 88

Describe the classifications of fire and the corresponding extinguishment methods.

Definition

Description should include the following fire classifications and extinguishment methods:

<table>
<thead>
<tr>
<th>Classification of Fire</th>
<th>Extinguishment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>Lower Temperature</td>
</tr>
<tr>
<td>Class B</td>
<td>Oxygen Elimination</td>
</tr>
<tr>
<td>Class C</td>
<td>Fuel Elimination</td>
</tr>
<tr>
<td>Class D</td>
<td>Chemical Flame Suppression</td>
</tr>
<tr>
<td>Class K</td>
<td>Oxygen/Fuel Elimination</td>
</tr>
</tbody>
</table>

Process/Skill Questions

- How can water act as a cooling agent, a mechanical tool, a substitute medium, and a protective cover?
- What is the difference between natural gas and liquefied petroleum gas?
- Why are lockout/tagout devices recommended?

Task Number 89

Identify types of foam for fire suppression.

Definition

Identification should include
• definition of foam—an aggregate of gas-filled bubbles formed from aqueous solutions of specially formulated concentrated liquid foaming agents
• types of foam available, including
  o protein foam
  o fluoroprotein foam–aqueous film-forming foam (AFFF)
  o fluoroprotein film-forming foam (FFFP)
  o detergent-type foams.

Process/Skill Questions

• What are the differences between low-, medium-, and high-expansion foams?
• What foam is specifically used on polar solvents?
• Why is aeration critical during a foam operation?

Task Number 90

Demonstrate the suppression of Class A and Class B fires, using hose line.

Definition

Demonstration should include

• using hose lines that have been pulled and placed in service by the department’s SOP/SOGs
• using the teamwork concept on the fireground (i.e., two in/two out).

Process/Skill Questions

• What type of hose line can be used by a single firefighter?
• What are the advantages of a smooth bore-hand line versus an automatic fog nozzle?
• What type of fire attack involves using a master stream device?

Task Number 91

Demonstrate the suppression of Class A, B, and C fires, using portable fire extinguishers.

Definition

Demonstration should require the four-step process:
1. Pull the pin.
2. Aim the nozzle at the base of the fire.
3. Squeeze the handle.
4. Sweep the area of the fire.

Process/Skill Questions

- What is a portable fire extinguishing agent that is no longer used in the fire service? Why is it no longer used?
- How often should employees be trained on the use of the fire extinguisher?
- When should an extinguisher be discharged and recharged?

Task Number 92

Identify the extinguishment theory for fighting wildland fires.

Definition

Identification should include the factors affecting wildland fires, such as

- weather—temperature, relative humidity, atmospheric stability, wind speed and direction, precipitation
- fuels—fuel loading, size and shape, compactness, horizontal and vertical continuity, chemical content
- topography—elevation, position on slope, aspect, shape of country, grade of slope.

Identification should also include a method for confining the spread of a wildland fire by surrounding it with hose lines, removing the fuel, and choosing from among

- point of attack—considered the anchor point
- direct attack—focusing on working the flack of the fire toward the head or progressive end
- parallel method—involving direct attack on the opposite flank
- indirect attack—focusing on removing fuel in front of the head
- interfacing firefighting and aerial operations.

Process/Skill Questions

- What type of vehicle is used by the forestry service to assist in wildland firefighting?
- Where do aircraft get their fire-suppression agents?
- What does a topographical map illustrate?
Task Number 93

Identify the types and ratings of portable fire extinguishers.

Definition

Identification should include

- the class of fire, based on fuels, listed on the extinguisher
- the rating of the fire extinguisher, as identified by colored geometrical shapes with letter designations or by picture system.

Process/Skill Questions

- How does halon affect the ozone?
- What NFPA standard covers the care and maintenance of fire extinguishers?
- How is an Indian tank used?

Using Ladders

Task Number 94

Identify ladder types, parts, and safety features.

Definition

Identification should include the construction, parts, and safety features for

- wall/straight ladder
- extension ladder
- roof ladder
- attic ladder
- extension ladder with poles
- aerial ladder
- other aerial devices (e.g., tower, telesquirt, snorkel)
- special-purpose ladders (e.g., A ladder, folding ladder, pompier ladder)
- solid-beam ladder
- truss-beam wood ladder
- aluminum ladder
- wood- and aluminum-truss ladder
- fiberglass ladder.
Process/Skill Questions

- What is the cafeteria raise?
- Why are wooden ladders no longer used in the fire service?
- What are some limitations of aerial ladders?

Task Number 95

Perform ladder carries.

Definition

- What is the cafeteria raise?
- Why are wooden ladders no longer used in the fire service?
- What are some limitations of aerial ladders?

Process/Skill Questions

- What parts of the body should be used to lift a ground ladder?
- When would it be advantageous to carry a roof ladder butt-first?
- What ladder requires a six-person carry?

Task Number 96

Perform ladder raises.

Definition

Performance may include

- flat raise
- beam raise
- perpendicular raise
- parallel raise
- one-person flat raise
- two-person perpendicular raise using a wall ladder
- two-person perpendicular raise using an extension ladder
- two-person parallel beam raise using a wall ladder
- two-person parallel beam raise using an extension ladder
- two-person parallel flat raise using a wall ladder
- two-person parallel flat raise using an extension ladder
- two-person roof ladder raise for a one-story building
• two-person roof ladder raise for a two-story building
• three- or four-person perpendicular flat raise using an extension ladder
• five- or six-person perpendicular raise
• five- or six-person parallel raise
• overhead obstruction raise.

Performance should also include positioning the bottom of the ladder at a distance from a vertical plane equal to 1/4 the total working length of the ladder. The ideal ladder angle is 75.5 degrees.

Process/Skill Questions

• How can a 75-degree angle be determined without an instrument?
• Why should the wind direction be determined prior to raising a ladder?
• How can a ladder be secured after it is raised?

Task Number 97

Describe maintenance, cleaning, and inspection procedures for ladders.

Definition

Description should include visual inspection and testing requirements

• before placing the ladder in service for the first time
• after the ladder has been subjected to loads exceeding the NFPA recommended level
• after the ladder has been used in any unusual manner
• after the ladder has been repaired
• any time there is a question regarding ladder safety.

Methods for maintenance should include

• wiping wood ladders dry after they have been wet
• oiling all pawls and pulleys
• lubricating guides, grooves, and other bearing surfaces
• applying varnish to wood ladders when needed
• sharpening dull spurs
• removing any splinters or burrs
• replacing worn parts when needed.

Process/Skill Questions

• How often should a ladder be tested?
• What device detects damage that has occurred to a ladder?
• What NFPA standard references ladder maintenance?

Using Ropes

Task Number 98

Differentiate between types of ropes and knots.

Definition

Differentiation should include

• using life-safety and utility ropes
• explaining dynamic and static construction
• explaining when life-safety rope becomes utility rope.

Process/Skill Questions

• What natural fibers, other than manila, are used in rope construction?
• Why is it advantageous to use synthetic rope?
• What does NFPA say about rope elongation?

Task Number 99

Demonstrate the types of knots required for hoisting or securing.

Definition

Demonstration should include tying a

• bowline for hoisting or securing an object
• clove hitch for securing and/or hoisting
• figure 8
• figure 8 follow through
• figure 8 on a bight
• Becket bend
• waterman’s knot
• half hitch
• safety knot.

Process/Skill Questions

• Why should a double-overhand knot be used with most tied knots?
• What other terms describe the working end?

Task Number 100

Describe maintenance, cleaning, and inspection functions for life-safety and utility rope.

Definition

Description should include

• adhering to manufacturer's specifications
• keeping a rope log
• following manufacturer's cleaning recommendations
• following air-drying procedures
• conducting routine inspections after use
• looking for damage and rope degradation.

Process/Skill Questions

• What are common methods of rope storage?
• What are ways of washing rope?
• When should a rope be downgraded?

Following Forcible Entry Procedures

Task Number 101

Identify types of forcible entry tools.

Definition
Identification should include the tool family or use group and the common names for tools that perform the following functions:

- Striking—flathead ax, maul, sledgehammer, battering ram, hammer, punch/chisel, lock breaker
- Prying—crowbar, halligan tool, hux, claw tool, pry bar, hydraulic, pry tools
- Cutting—axes, saws, torches, bolt cutters
- Pulling—hooks, pike poles
- Going through-the-lock—K tool, A tool, pick/key tool, vise grip/channel-lock pliers, REX tool

**Process/Skill Questions**

- What precautions should be taken when starting power saws?
- What is the hazard involved with acetylene?
- What types of tools are used primarily during vehicle extrication?

**Task Number 102**

**Demonstrate methods for forcing windows and doors.**

**Definition**

Demonstration should include

- following department SOPs/SOGs
- wearing PPE, including hand and eye protection
- operating safely with others in the immediate work area
- ensuring tools are in operating condition prior to use
- securing loose, unused tools to prevent tripping or other hazards
- storing tools neatly and making them easily accessible.

**Process/Skill Questions**

- What should be done prior to forcing entry?
- What is important to know about building construction prior to conducting forcible entry?
- How might the wind factor into forcible entry?

**Task Number 103**
Describe maintenance, cleaning, and inspection functions for forcible entry tools.

Definition

Description should include

- checking fuel and fluid levels for gas-operated tools
- following manufacturer instructions for maintenance
- removing from service and/or repairing when defects are found
- checking metal heads and parts
  - removing dirt and/or rust with steel wool or emery cloth
  - maintaining file cutting edge to proper profile, sharpening edge, and removing burrs
  - avoiding over-sharpening or bench grinding, which may cause damage after use
  - lightly oiling metal parts, but not painting
- caring for fiberglass handles
  - washing with soap and water; drying completely
  - checking for cracks and damage
  - securing metal parts
- caring for wooden handles
  - washing with soap and water, rinsing, and drying completely
  - checking for damage and sand splitters
  - applying boiled linseed oil, if desired (do not paint)
  - securing metal parts.

Process/Skill Questions

- What is the advantage of using boiled linseed oil over paint for wooden handles?
- What can cause a hydraulic tool to fail?
- What are the limitations of cordless tools?

Task Number 104

Describe methods, components, and considerations of forcible entry.

Definition

Description should include

- forcing the locking device(s)
- attacking the fastenings
cutting gates or bars.

Techniques for breaching floors and roofs should include cutting through wooden floors or roofs with power saws and axes. Other factors affecting forcible entry might include building construction and available tools.

Description might also include breaching types of doors, such as

- wooden—panel, slab, or ledge
- metal—hollow core or metal clad, overhead, commercial or residential garage doors, or roll-down
- glass—metal or tubular frame, tempered or frameless, sliding, or revolving.

When breaching doors or windows, consider

- frame/jamb materials (whether rabbeted or stopped)
- mounting hardware
- locking device
- direction of door swing.

Types of glass might include

- regular or plate
- tempered
- laminated (i.e., safety)
- wire
- polycarbonate.

Types of windows might include

- double hung
- check rail
- energy efficient
- casement
- awning
- jalousie
- projected
- fixed.

Types of locks might include

- key-in-the-knob
- mortise—dead bolt, dead bolt and latch, pivoting dead bolt
- rim locks—surface locks
- tubular locks
- padlocks
• special locks.

Types of walls, floors, and roofs might include

• wood-framed
• masonry (e.g., block, brick)
• concrete reinforced
• metal.

Process/Skill Questions

• What hazard do firefighters encounter when forcing an overhead door?
• What products are available on the market to assist with nondestructive entry?
• What should be considered after forcing entry through a fenced area?

Understanding Ventilation

Task Number 105

Describe the need for ventilation at a fire scene.

Definition

Description should include how ventilation

• promotes rescue operations
• provides a means for fire attack and extinguishment
• conserves property
• controls fire spread
• reduces flashover potential
• reduces backdraft potential.

Process/Skill Questions

• What thermodynamic mechanism affects ventilation?
• How does ventilation reduce the potential for flashover or backdraft?
• How can ventilation aid in property conservation?

Task Number 106

Identify the types of ventilation.
Definition

Identification should include

- vertical ventilation
- horizontal ventilation
- forced ventilation
  - mechanical
  - hydraulic.

Process/Skill Questions

- What determines the type of ventilation used?
- What tools are necessary for vertical ventilation?
- How does forced ventilation aid the mission?

Task Number 107

Demonstrate methods for creating horizontal, vertical, mechanical, and hydraulic ventilation.

Definition

Demonstration should include

- horizontal ventilation, accounting for
  - weather conditions
  - exposures
  - location of openings
- vertical ventilation, accounting for
  - roof types
  - safety
  - existing roof opening
  - trench or strip
  - tools
- mechanical ventilation, accounting for positive and negative pressure
- hydraulic ventilation, accounting for use of a hand line.

Process/Skill Questions

- When using horizontal ventilation, how are the locations of the openings determined?
- What safety precautions need to be followed when using vertical ventilation?
- What determines the choice to use positive or negative pressure for mechanical ventilation?
Determining Salvage, Overhaul, and Cause of Fire

Task Number 108

Describe salvage and overhaul needs and techniques.

Definition

Description should include the following:

- Salvage operations include using the materials and processes that affect the removal of or provide protection from harmful atmospheres.
- Overhaul is the process of breaching walls, ceilings, floors, and attics to verify that all the fire is extinguished.
- Basic equipment needs may include salvage covers, floor runners, water vacuums, and fastening tools for salvage. Shovels, axes, pike poles, buckets, thermal cameras, and heat sensors are tools commonly used for overhaul.

Process/Skill Questions

- What advantages are there to using plastic salvage covers?
- What factors are considered when predicting salvage and overhaul needs?
- What is the main purpose of overhaul?

Task Number 109

Describe the need for evidence preservation.

Definition

Description should include the signs of origin and cause.

Process/Skill Questions

- What types of evidence do investigators search for at a fire scene?
- What qualifies as evidence?
- Why is it important to recognize and preserve evidence?
Task Number 110

**Identify methods for legally securing a building after emergency operations are complete.**

**Definition**

Identification should include

- securing access to the building from entry of weather, the public, the owner, and the utility providers, so that no further injury will occur to victims or to the building
- contacting outside resources (e.g., American Red Cross) to assist with personal needs.

**Process/Skill Questions**

- Why is it important to secure a building after operations are complete?
- What is the best method for physically securing a building?

Task Number 111

**Demonstrate use of salvage covers to protect property.**

**Definition**

Demonstration may involve several methods of rolls and folds used for one- or two-person deployment, including

- balloon toss
- catch all
- water chute.

**Process/Skill Questions**

- Which deployment method is best when protecting property?
- What determines the deployment method?

Task Number 112

**Describe maintenance, cleaning, and inspection functions for salvage and overhaul.**
Definition

Description should refer to SOPs/SOGs, manufacturer's recommendations, and instructor guidelines.

Process/Skill Questions

- Where are the methods for maintenance found?
- What is the most commonly recommended method for cleaning?

Adhering to Hazardous Materials (HAZMAT) Standards

Task Number 113

Identify basic HAZMAT standards and resources for handling an incident.

Definition

Identification should include

- Federal Hazardous Waste Operations and Emergency Response Act
- North American Emergency Response Guidebook
- Department of Transportation’s Emergency Response Guidebook
- HAZMAT placards
- safety data sheets (SDS).

Process/Skill Questions

- What are hazardous materials are typically found in residences?
- Where should placards be located on vehicles transporting hazardous materials?
- Where is the SDS typically located in a commercial establishment?

Task Number 114

Identify hazardous materials that may be involved in terrorist attacks.
Definition

Identification should include

- explosive and incendiary devices
- chemical agents
- biological agents
- radiological agents.

Process/Skill Questions

- What are signs that a biological agent has contaminated the area?
- What are signs that a nerve agent has contaminated the area?
- What are signs of a nuclear detonation?

Task Number 115

Describe procedures for responding to a terrorist attack.

Definition

Description should include

- establishing a safe and quick approach
- using additional precautions associated with terrorist acts
- identifying hazards related to terrorism
- connecting with specialized resources (e.g., Federal Bureau of Investigations [FBI], FEMA).

Process/Skill Questions

- Who has authority at the scene of a terrorist attack?
- How far from a scene should the command post be established?
- What is the purpose of decontamination?

Addressing Fire Prevention and Public Fire Education

Task Number 116
Deliver a fire-safety education presentation.

**Definition**

Delivery should include

- choosing methods of delivery, based on audience and duration of presentation
- focusing on a specific message (e.g., how to make the home safe, what to do if a fire should occur).

**Process/Skill Questions**

- What are the benefits of fire-safety education programs?
- Who should be the target audience in fire-safety education programs, and why?
- Why is public relations important to the fire department?

**Task Number 117**

Research NFPA certification options and regional education opportunities.

**Definition**

Research should include

- using reputable online resources
- identifying NFPA certification requirements (e.g., where and when the written exam is offered, identification requirements, prerequisite credentials, and coursework completion)
- creating a timeline for achieving NFPA requirements
- identifying regional programs that offer skills training and/or help with preparing to earn the NFPA certification
- identifying alternative career opportunities based on firefighting coursework
- identifying alternative postsecondary education and training routes.

**Process/Skill Questions**

- What are the primary Virginia certifications associated with firefighting?
- What are additional certification opportunities related to firefighting?
- What are additional postsecondary education opportunities?

**SOL Correlation by Task**
<table>
<thead>
<tr>
<th>Task</th>
<th>English:</th>
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</thead>
<tbody>
<tr>
<td>Identify classroom safety rules and procedures.</td>
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<tr>
<td>Identify school safety policies and procedures.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Follow general safety procedures.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Identify equipment safety rules and procedures.</td>
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</tr>
<tr>
<td>Review practices that promote health and wellness.</td>
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</tr>
<tr>
<td>Outline the physical fitness standards for firefighters.</td>
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<tr>
<td>Define risk management.</td>
<td>11.3, 11.5, 12.3, 12.5</td>
</tr>
<tr>
<td>Identify common causes of death in the fire service.</td>
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</tr>
<tr>
<td>Identify the features of conducting an organized rapid escape.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Identify procedures to follow when an entrapment occurs.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Identify the importance of NFPA standards to the fire service.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Differentiate among criminal, civil, and case law.</td>
<td>11.5, 12.5</td>
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<tr>
<td>Explain rules of evidence.</td>
<td>11.3, 11.5, 12.3, 12.5</td>
</tr>
<tr>
<td>Describe techniques for vehicle stops.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Identify high-risk situations an officer may face.</td>
<td>11.5, 12.5</td>
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<tr>
<td>Explain crime prevention.</td>
<td>11.3, 12.3</td>
</tr>
<tr>
<td>Describe the roles of the judge, bailiff, prosecuting attorney, defense attorney, victim/witness advocate, and jury.</td>
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<tr>
<td>Describe professional demeanor in court.</td>
<td>11.5, 12.5</td>
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<tr>
<td>Describe the sentencing process.</td>
<td>11.5, 12.5</td>
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<tr>
<td>Describe the scope of authority of the Juvenile and Domestic Relations Court of Virginia.</td>
<td>11.3, 11.5, 12.3, 12.5</td>
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<tr>
<td>Identify constitutional guarantees affecting juveniles taken into custody.</td>
<td>11.5, 12.5</td>
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<tr>
<td>Outline the stages of a typical juvenile case from arrest through adjudication.</td>
<td>11.6, 12.6</td>
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<tr>
<td>Describe dispositions available through Juvenile and Domestic Relations Court.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Explain procedures for handling juveniles’ records.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Describe the history of terrorism.</td>
<td>History and Social Science: VUS.14, WHII.14</td>
</tr>
<tr>
<td>Distinguish between international and domestic terrorism.</td>
<td>History and Social Science: VUS.14, WHII.14</td>
</tr>
<tr>
<td>Describe safety precautions for first responders to mass-casualty incidents.</td>
<td>History and Social Science: VUS.14, WHII.14</td>
</tr>
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<td>Task</td>
<td>English:</td>
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<tr>
<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Describe the roles of incident command.</td>
<td>11.1, 5, 12.1, 12.5</td>
</tr>
<tr>
<td>Write a mission statement for the fire service.</td>
<td>11.6, 11.7, 12.6, 12.7</td>
</tr>
<tr>
<td>Describe the effects of the Civil Rights Act of 1991 and the Americans with Disabilities Act (ADA) on the employment and supervision of firefighters.</td>
<td>History and Social Science: VUS.13, VUS.14</td>
</tr>
<tr>
<td>List rules and laws that regulate the fire service.</td>
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</tr>
<tr>
<td>Identify standard operating procedures (SOPs) and standard operating guides (SOGs) in the fire service.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Develop an organizational chart for NIMS.</td>
<td>11.1, 12.1</td>
</tr>
<tr>
<td>List the allied agencies that assist with fire department operations.</td>
<td>11.6, 11.7, 11.8, 12.6, 12.7, 12.8</td>
</tr>
<tr>
<td>Identify sources of heat energy.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Describe the burning process, the transmission of heat, and the products of combustion.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Explain key terms related to fire behavior.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Describe building construction methods and materials.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Define the five types of building construction and their associated hazards.</td>
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<tr>
<td>Predict a fire’s growth and development according to type of building construction.</td>
<td>11.5, 12.5</td>
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<tr>
<td>Identify indications of potential building collapse and collapse zone evacuation procedures.</td>
<td>11.5, 12.5</td>
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<tr>
<td>List causes of friction loss in water mains.</td>
<td>11.6, 11.7, 12.6, 12.7</td>
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<tr>
<td>Compare wet-barrel and dry-barrel hydrants.</td>
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<tr>
<td>Describe fire-extinguishment theory.</td>
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<tr>
<td>Outline fire-suppression techniques and measures.</td>
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<tr>
<td>Describe the classifications of fire and the corresponding extinguishment methods.</td>
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</tr>
<tr>
<td>Identify types of foam for fire suppression.</td>
<td>11.5, 12.5</td>
</tr>
<tr>
<td>Activity</td>
<td>Relevant Standards</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Demonstrate the suppression of Class A and Class B fires, using hose line.</td>
<td></td>
</tr>
<tr>
<td>Demonstrate the suppression of Class A, B, and C fires, using portable fire extinguishers.</td>
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</tr>
<tr>
<td>Identify the extinguishment theory for fighting wildland fires.</td>
<td>Science: ES.7, ES.12</td>
</tr>
<tr>
<td>Identify the types and ratings of portable fire extinguishers.</td>
<td>English: 11.5, 12.5</td>
</tr>
<tr>
<td>Identify ladder types, parts, and safety features.</td>
<td>English: 11.5, 12.5</td>
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<tr>
<td>Perform ladder carries.</td>
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<tr>
<td>Perform ladder raises.</td>
<td>Mathematics: G.8</td>
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<tr>
<td>Describe maintenance, cleaning, and inspection procedures for ladders.</td>
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<tr>
<td>Differentiate between types of ropes and knots.</td>
<td>English: 11.5, 12.5</td>
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<tr>
<td>Demonstrate the types of knots required for hoisting or securing.</td>
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<tr>
<td>Describe maintenance, cleaning, and inspection functions for life-safety and utility rope.</td>
<td>English: 11.5, 12.5</td>
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<tr>
<td>Identify types of forcible entry tools.</td>
<td>English: 11.5, 12.5</td>
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History and Social Science: VUS.13, VUS.14
Science: CH.1

History and Social Science: VUS.14, WG.17, WHII.14
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</tr>
<tr>
<td></td>
<td>English: 11.8, 12.8</td>
</tr>
</tbody>
</table>

### SkillsUSA Information

SkillsUSA, the co-curricular student organization for Trade and Industrial Education, provides many opportunities through its program for students to apply the knowledge, skills, and processes learned in a variety of courses.

National SkillsUSA: [http://skillsusa.org](http://skillsusa.org)


### Customer Service Infusion Units

Customer Service Infusion Units (CSIU) were designed to be infused with designated CTE courses to help students in those programs achieve additional, focused, validated tasks/competencies in customer service. These units are not mandatory, and, as such, the tasks/competencies are marked as "optional," to be taught at the instructor's discretion.

### Teaching Resources

**Virginia Rules**

This program, offered by the Virginia Office of the Attorney General, is designed to educate young Virginians about Virginia laws and help them develop skills needed to make sound decisions, to avoid breaking laws, and to become active citizens of their schools and communities. Some Virginia schools have used the curriculum in their criminal justice career programs. Virginia Rules features 22 SOL-correlated lessons designed for middle and high school students. Instructors can download lessons with student worksheets, student topical handouts, and supplemental materials such as videos and exercises. The site features a wealth of supporting information from a glossary to supporting Code of Virginia links, and includes an instructor portal with additional features for teachers.

For more information or to request support, contact Mark Fero at mfero@oag.state.va.us.

### Entrepreneurship Infusion Units

Entrepreneurship Infusion Units may be used to help students achieve additional, focused competencies and enhance the validated tasks/competencies related to identifying and starting a
new business venture. Because the unit is a complement to certain designated courses and is not mandatory, all tasks/competencies are marked “optional.”
Appendix: Credentials, Course Sequences, and Career Cluster Information

Industry Credentials: Only apply to 36-week courses

- College and Work Readiness Assessment (CWRA+)
- Customer Service Examination
- Customer Service Specialist (CSS) Examination
- Emergency and Fire Management Services Assessment
- Emergency Medical Services Assessment
- National Career Readiness Certificate Assessment
- Professional Communications Certification Examination
- Protective Services Assessment
- Workplace Readiness Skills for the Commonwealth Examination

Concentration sequences: A combination of this course and those below, equivalent to two 36-week courses, is a concentration sequence. Students wishing to complete a specialization may take additional courses based on their career pathways. A program completer is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program.

- Public Safety I (8700/36 weeks, 140 hours)

Career Cluster: Law, Public Safety, Corrections and Security

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<tr>
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<td>Corrections Officer</td>
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<td></td>
<td>Probation, Parole Officer</td>
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<td>Emergency and Fire Management Services</td>
<td>Dispatcher</td>
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<tr>
<td></td>
<td>Emergency Medical Technician, Paramedic</td>
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<td></td>
<td>Fire Investigator</td>
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<td>Firefighter</td>
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<td>Hazardous Materials Removal Worker</td>
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<td>Law Enforcement Services</td>
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<td></td>
<td>Forensic Science Technician</td>
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<td>Police Officer</td>
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<td>Private Detective, Investigator</td>
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<td>U.S. Marshal</td>
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<td>Security and Protective Services</td>
<td>Private Detective, Investigator</td>
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<td></td>
<td>Security Officer</td>
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