The Pathway Knowledge and Skills Chart describes what all/most learners/workers need to know and be able to do to demonstrate competence within a career pathway. Following the pathway description, there are four sets of knowledge and skill expectations:
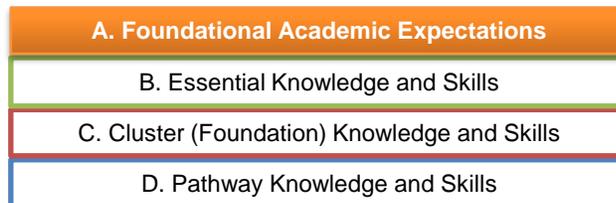
A. Foundational Academic Expectations
B. Essential Knowledge and Skills
C. Cluster (Foundation) Knowledge and Skills
D. Pathway Knowledge and Skills

PATHWAY DESCRIPTION

Emergency and Fire Management Services Pathway: Every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters and emergency services workers help protect the public against these dangers by rapidly responding to a variety of emergencies. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries or perform other vital functions.

A. FOUNDATIONAL ACADEMIC EXPECTATIONS

All secondary students should meet their state's academic standards. All Essential Cluster and Pathway Knowledge and Skills are predicated on the assumption that foundational academic skills have been attained. Some knowledge and skill statements will further define critical linkages and applications of academics in the cluster and/or pathway.

A. Foundational Academic Expectations
B. Essential Knowledge and Skills
C. Cluster (Foundation) Knowledge and Skills
D. Pathway Knowledge and Skills

B. ESSENTIAL KNOWLEDGE AND SKILLS

The following Essential Knowledge and Skill statements apply to careers in all clusters and pathways. Persons preparing for careers in the this pathway should be able to demonstrate these skills in the context of this cluster and pathway.

A. Foundational Academic Expectations
B. Essential Knowledge and Skills
C. Cluster (Foundation) Knowledge and Skills
D. Pathway Knowledge and Skills

Essential Topic ESS01	**ACADEMIC FOUNDATIONS:** *Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster.*

ESS01.01	**Complete required training, education, and certification to prepare for employment in a particular career field.**
ESS01.01.01	Identify training, education and certification requirements for occupational choice.
ESS01.01.02	Participate in career-related training and/or degree programs.
ESS01.01.03	Pass certification tests to qualify for licensure and/or certification in chosen occupational area.
ESS01.02	**Demonstrate language arts knowledge and skills required to pursue the full range of post-secondary education and career opportunities.**
ESS01.02.01	Model behaviors that demonstrate active listening.
ESS01.02.02	Adapt language for audience, purpose, situation. (i.e. diction/structure, style).
ESS01.02.03	Organize oral and written information.
ESS01.02.04	Compose focused copy for a variety of written documents such as agendas, audio-visuals, bibliographies, drafts, forms/documents, notes, oral presentations, reports, and technical terminology.
ESS01.02.05	Edit copy to create focused written documents such as agendas, audio-visuals, bibliographies, drafts, forms/documents, notes, oral presentations, reports, and technical terminology.
ESS01.02.06	Comprehend key elements of oral and written information such as cause/effect, comparisons/contrasts, conclusions, context, purpose, charts/tables/graphs, evaluation/critiques, mood, persuasive text, sequence, summaries, and technical subject matter.
ESS01.02.07	Evaluate oral and written information for accuracy, adequacy/sufficiency, appropriateness, clarity, conclusions/solutions, fact/opinion, propaganda, relevancy, validity, and relationship of ideas.
ESS01.02.08	Identify assumptions, purpose, outcomes/solutions, and propaganda techniques.
ESS01.02.09	Predict potential outcomes and/or solutions based on oral and written information regarding trends.
ESS01.02.10	Present formal and informal speeches including discussion, information requests, interpretation, and persuasive arguments.
ESS01.03	**Demonstrate mathematics knowledge and skills required to pursue the full range of post-secondary education and career opportunities.**
ESS01.03.01	Identify whole numbers, decimals, and fractions.
ESS01.03.02	Demonstrate knowledge of basic arithmetic operations such as addition, subtraction, multiplication, and division.
ESS01.03.03	Demonstrate use of relational expressions such as equal to, not equal, greater than, less than, etc.
ESS01.03.04	Apply data and measurements to solve a problem.
ESS01.03.05	Analyze Mathematical problem statements for missing and/or irrelevant data.
ESS01.03.06	Construct charts/tables/graphs from functions and data.

ESS01.03.07	Analyze data when interpreting operational documents.
ESS01.04	**Demonstrate science knowledge and skills required to pursue the full range of post-secondary and career education opportunities.**
ESS01.04.01	Evaluate scientific constructs including conclusions, conflicting data, controls, data, inferences, limitations, questions, sources of errors, and variables.
ESS01.04.02	Apply scientific methods in qualitative and quantitative analysis, data gathering, direct and indirect observation, predictions, and problem identification.

Essential Topic ESS02	**COMMUNICATIONS:** *Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information.*
ESS02.01	**Select and employ appropriate reading and communication strategies to learn and use technical concepts and vocabulary in practice.**
ESS02.01.01	Determine the most appropriate reading strategy for identifying the overarching purpose of a text (i.e. skimming, reading for detail, reading for meaning or critical analysis).
ESS02.01.02	Demonstrate use of content, technical concepts and vocabulary when analyzing information and following directions.
ESS02.01.03	Select the reading strategy or strategies needed to fully comprehend the content within a written document (i.e., skimming, reading for detail, reading for meaning or critical analysis).
ESS02.01.04	Interpret information, data, and observations to apply information learned from reading to actual practice.
ESS02.01.05	Transcribe information, data, and observations to apply information learned from reading to actual practice.
ESS02.01.06	Communicate information, data, and observations to apply information learned from reading to actual practice.
ESS02.02	**Demonstrate use of the concepts, strategies, and systems for obtaining and conveying ideas and information to enhance communication in the workplace.**
ESS02.02.01	Employ verbal skills when obtaining and conveying information.
ESS02.02.02	Record information needed to present a report on a given topic or problem.
ESS02.02.03	Write internal and external business correspondence that conveys and/or obtains information effectively.
ESS02.02.04	Communicate with other employees to clarify workplace objectives.
ESS02.02.05	Communicate effectively with customers and employees to foster positive relationships.

ESS02.03	**Locate, organize and reference written information from various sources to communicate with co-workers and clients/participants.**
ESS02.03.01	Locate written information used to communicate with co-workers and customers.
ESS02.03.02	Organize information to use in written and oral communications.
ESS02.03.03	Reference the sources of information.
ESS02.04	**Evaluate and use information resources to accomplish specific occupational tasks.**
ESS02.04.01	Use informational texts, Internet web sites, and/or technical materials to review and apply information sources for occupational tasks.
ESS02.04.02	Evaluate the reliability of information from informational texts, Internet Web sites, and/or technical materials and resources.
ESS02.05	**Use correct grammar, punctuation and terminology to write and edit documents.**
ESS02.05.01	Compose multi-paragraph documents clearly, succinctly, and accurately.
ESS02.05.02	Use descriptions of audience and purpose when preparing and editing written documents.
ESS02.05.03	Use correct grammar, spelling, punctuation, and capitalization when preparing written documents.
ESS02.06	**Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences.**
ESS02.06.01	Prepare oral presentations to provide information for specific purposes and audiences.
ESS02.06.02	Identify support materials that will enhance an oral presentation.
ESS02.06.03	Prepare support materials that will enhance an oral presentation.
ESS02.06.04	Deliver an oral presentation that sustains listeners' attention and interest.
ESS02.06.05	Align presentation strategies to the intended audience.
ESS02.06.06	Implement multi-media strategies for presentations.
ESS02.07	**Interpret verbal and nonverbal cues/behaviors to enhance communication with co-workers and clients/participants.**
ESS02.07.01	Interpret verbal behaviors when communicating with clients and co-workers.
ESS02.07.02	Interpret nonverbal behaviors when communicating with clients and co-workers.
ESS02.08	**Apply active listening skills to obtain and clarify information.**
ESS02.08.01	Interpret a given verbal message/information.
ESS02.08.02	Respond with restatement and clarification techniques to clarify information.
ESS02.09	**Develop and interpret tables, charts, and figures to support written and oral communications.**

ESS02.09.01	Create tables, charts, and figures to support written and oral communications.
ESS02.09.02	Interpret tables, charts, and figures used to support written and oral communication.

ESS02.10   **Listen to and speak with diverse individuals to enhance communication skills.**

ESS02.10.01	Apply factors and strategies for communicating with a diverse workforce.
ESS02.10.02	Demonstrate ability to communicate and resolve conflicts within a diverse workforce.

ESS02.11   **Exhibit public relations skills to increase internal and external customer/client satisfaction.**

ESS02.11.01	Communicate effectively when developing positive customer/client relationships.

Essential Topic ESS03	**PROBLEM-SOLVING AND CRITICAL THINKING:** *Solve problems using critical thinking skills (analyze, synthesize, and evaluate) independently and in teams. Solve problems using creativity and innovation.*

ESS03.01   **Employ critical thinking skills independently and in teams to solve problems and make decisions (e.g., analyze, synthesize and evaluate).**

ESS03.01.01	Identify common tasks that require employees to use problem-solving skills.
ESS03.01.02	Analyze elements of a problem to develop creative solutions.
ESS03.01.03	Describe the value of using problem-solving and critical thinking skills to improve a situation or process.
ESS03.01.04	Create ideas, proposals, and solutions to problems.
ESS03.01.05	Evaluate ideas, proposals, and solutions to problems.
ESS03.01.06	Use structured problem-solving methods when developing proposals and solutions.
ESS03.01.07	Generate new and creative ideas to solve problems by brainstorming possible solutions.
ESS03.01.08	Critically analyze information to determine value to the problem-solving task.
ESS03.01.09	Guide individuals through the process of recognizing concerns and making informed decisions.
ESS03.01.10	Identify alternatives using a variety of problem-solving and critical thinking skills.
ESS03.01.11	Evaluate alternatives using a variety of problem-solving and critical thinking skills.

ESS03.02   **Employ critical thinking and interpersonal skills to resolve conflicts with staff and/or customers.**

ESS03.02.01	Analyze situations and behaviors that affect conflict management.
ESS03.02.02	Determine best options/outcomes for conflict resolution using critical thinking skills.

ESS03.02.03	Identify with others' feelings, needs, and concerns.
ESS03.02.04	Implement stress management techniques.
ESS03.02.05	Resolve conflicts with/for customers using conflict resolution skills.
ESS03.02.06	Implement conflict resolution skills to address staff issues/problems.

ESS03.03   **Identify, write and monitor workplace performance goals to guide progress in assigned areas of responsibility and accountability.**

ESS03.03.01	Write realistic performance goals, objectives and action plans.
ESS03.03.02	Monitor performance goals and adjust as necessary.
ESS03.03.03	Recognize goal achievement using appropriate rewards in the workplace.
ESS03.03.04	Communicate goal achievement with managers and co-workers.

ESS03.04   **Conduct technical research to gather information necessary for decision-making.**

ESS03.04.01	Align the information gathered to the needs of the audience.
ESS03.04.02	Gather technical information and data using a variety of resources.
ESS03.04.03	Analyze information and data for value to the research objectives.
ESS03.04.04	Evaluate information and data to determine value to research objectives.

Essential Topic ESS04	**INFORMATION TECHNOLOGY APPLICATIONS:** *Use information technology tools specific to the career cluster to access, manage, integrate, and create information.*

ESS04.01   **Use Personal Information Management (PIM) applications to increase workplace efficiency.**

ESS04.01.01	Manage personal schedules and contact information.
ESS04.01.02	Create memos and notes.

ESS04.02   **Employ technological tools to expedite workflow.**

ESS04.02.01	Use information technology tools to manage and perform work responsibilities.

ESS04.03   **Operate electronic mail applications to communicate within a workplace.**

ESS04.03.01	Use email to share files and documents.
ESS04.03.02	Identify the functions and purpose of email systems.
ESS04.03.03	Use email to communicate within and across organizations.

ESS04.04   **Operate Internet applications to perform workplace tasks.**

ESS04.04.01	Access and navigate Internet (e.g., use a web browser).
ESS04.04.02	Search for information and resources.
ESS04.04.03	Evaluate Internet resources for reliability and validity.

ESS04.05   **Operate writing and publishing applications to prepare business communications.**

ESS04.05.01	Prepare simple documents and other business communications.
ESS04.05.02	Prepare reports and other business communications by integrating graphics and other non-text elements.

ESS04.05.03	Prepare complex multi-media publications.
ESS04.06	**Operate presentation applications to prepare presentations.**
ESS04.06.01	Prepare presentations for training, sales and information sharing.
ESS04.06.02	Deliver presentations with supporting materials.
ESS04.07	**Employ spreadsheet applications to organize and manipulate data.**
ESS04.07.01	Create a spreadsheet.
ESS04.07.02	Perform calculations and analyses on data using a spreadsheet.
ESS04.08	**Employ database applications to manage data.**
ESS04.08.01	Manipulate data elements.
ESS04.08.02	Manage interrelated data elements.
ESS04.08.03	Analyze interrelated data elements.
ESS04.08.04	Generate reports showing interrelated data elements.
ESS04.09	**Employ collaborative/groupware applications to facilitate group work.**
ESS04.09.01	Facilitate group work through management of shared schedule and contact information.
ESS04.09.02	Facilitate group work through management of shared files and online information.
ESS04.09.03	Facilitate group work through instant messaging or virtual meetings.
ESS04.10	**Employ computer operations applications to manage work tasks.**
ESS04.10.01	Manage computer operations.
ESS04.10.02	Manage file storage.
ESS04.10.03	Compress or alter files.
ESS04.11	**Use computer-based equipment (containing embedded computers or processors) to control devices.**
ESS04.11.01	Operate computer driven equipment and machines.
ESS04.11.02	Use installation and operation manuals.
ESS04.11.03	Troubleshoot computer driven equipment and machines.
ESS04.11.04	Access support as needed to maintain operation of computer driven equipment and machines.

Essential Topic ESS05	**SYSTEMS:** *Understand roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. Identify how key organizational systems affect organizational performance and the quality of products and services. Understand global context of industries and careers.*
ESS05.01	**Describe the nature and types of business organizations to build an understanding of the scope of organizations.**
ESS05.01.01	List the types and functions of businesses.
ESS05.01.02	Describe the types and functions of businesses.
ESS05.01.03	Explain the functions and interactions of common departments within a business.

ESS05.02	**Implement quality control systems and practices to ensure quality products and services.**
ESS05.02.01	Describe quality control standards and practices common to the workplace.

Essential Topic ESS06	**SAFETY, HEALTH AND ENVIRONMENTAL:** *Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Follow organizational policies and procedures and contribute to continuous improvement in performance and compliance.*

ESS06.01	**Implement personal and jobsite safety rules and regulations to maintain safe and healthful working conditions and environments.**
ESS06.01.01	Assess workplace conditions with regard to safety and health.
ESS06.01.02	Align safety issues with appropriate safety standards to ensure a safe workplace/jobsite.
ESS06.01.03	Identify safety hazards common to workplaces.
ESS06.01.04	Identify safety precautions to maintain a safe worksite.
ESS06.01.05	Select appropriate personal protective equipment as needed for a safe workplace/jobsite.
ESS06.01.06	Inspect personal protective equipment commonly used for selected career pathway.
ESS06.01.07	Use personal protective equipment according to manufacturer rules and regulations.
ESS06.01.08	Employ a safety hierarchy and communication system within the workplace/jobsite.
ESS06.01.09	Implement safety precautions to maintain a safe worksite.
ESS06.02	**Complete work tasks in accordance with employee rights and responsibilities and employers obligations to maintain workplace safety and health.**
ESS06.02.01	Identify rules and laws designed to promote safety and health in the workplace.
ESS06.02.02	State the rationale of rules and laws designed to promote safety and health.
ESS06.03	**Employ emergency procedures as necessary to provide aid in workplace accidents.**
ESS06.03.01	Use knowledge of First Aid procedures as necessary.
ESS06.03.02	Use knowledge of CPR procedures as necessary.
ESS06.03.03	Use safety equipment as necessary.
ESS06.04	**Employ knowledge of response techniques to create a disaster and/or emergency response plan.**
ESS06.04.01	Complete an assessment of an emergency and/or disaster situation.
ESS06.04.02	Create an emergency and/or disaster plan.

Essential Topic ESS07	**LEADERSHIP AND TEAMWORK:** *Use leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.*

ESS07.01	**Employ leadership skills to accomplish organizational goals and objectives.**
ESS07.01.01	Analyze the various roles of leaders within organizations (e.g. contribute ideas; share in building an organization; act as role models to employees by adhering to company policies, procedures, and standards; promote the organization's vision; and mentor others).
ESS07.01.02	Exhibit traits such as empowerment, risk, communication, focusing on results, decision-making, problem solution, and investment in individuals when leading a group in solving a problem.
ESS07.01.03	Exhibit traits such as compassion, service, listening, coaching, developing others, team development, and understanding and appreciating others when acting as a manager of others in the workplace.
ESS07.01.04	Exhibit traits such as enthusiasm, creativity, conviction, mission, courage, concept, focus, principle-centered living, and change when interacting with others in general.
ESS07.01.05	Consider issues related to self, team, community, diversity, environment, and global awareness when leading others.
ESS07.01.06	Exhibit traits such as innovation, intuition, adaptation, life-long learning and coachability to develop leadership potential over time.
ESS07.01.07	Analyze leadership in relation to trust, positive attitude, integrity, and willingness to accept key responsibilities in a work situation.
ESS07.01.08	Describe observations of outstanding leaders using effective management styles.
ESS07.01.09	Participate in civic and community leadership and teamwork opportunities to enhance skills.
ESS07.02	**Employ organizational and staff development skills to foster positive working relationships and accomplish organizational goals.**
ESS07.02.01	Implement organizational skills when facilitating others' work efforts.
ESS07.02.02	Explain how to manage a staff that satisfies work demands while adhering to budget constraints.
ESS07.02.03	Describe how staff growth and development to increase productivity and employee satisfaction.
ESS07.02.04	Organize team involvement within a group environment.
ESS07.02.05	Work with others to develop and gain commitment to team goals.
ESS07.02.06	Distribute responsibility and work load fairly.
ESS07.02.07	Model leadership and teamwork qualities to aid in employee morale.
ESS07.02.08	Identify best practices for successful team functioning.
ESS07.02.09	Explain best practices for successful team functioning.
ESS07.03	**Employ teamwork skills to achieve collective goals and use team members' talents effectively.**

ESS07.03.01	Work with others to achieve objectives in a timely manner.
ESS07.03.02	Promote the full involvement and use of team members' individual talents and skills.
ESS07.03.03	Employ conflict-management skills to facilitate solutions.
ESS07.03.04	Demonstrate teamwork skills through working cooperatively with co-workers, supervisory staff, and others, both in and out of the organization, to achieve particular tasks.
ESS07.03.05	Demonstrate teamwork processes that provide team building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution.
ESS07.03.06	Develop plans to improve team performance.
ESS07.03.07	Demonstrate commitment to and a positive attitude toward team goals.
ESS07.03.08	Take responsibility for shared group and individual work tasks.
ESS07.03.09	Assist team members in completing their work.
ESS07.03.10	Adapt effectively to changes in projects and work activities.
ESS07.03.11	Negotiate effectively to arrive at decisions.

ESS07.04 **Establish and maintain effective working relationships with all levels of personnel and other departments in order to accomplish objectives and tasks.**

ESS07.04.01	Build effective working relationships using interpersonal skills.
ESS07.04.02	Use positive interpersonal skills to work cooperatively with co-workers representing different cultures, genders and backgrounds.
ESS07.04.03	Manage personal skills to accomplish assignments.
ESS07.04.04	Treat people with respect.
ESS07.04.05	Provide constructive praise and criticism.
ESS07.04.06	Demonstrate sensitivity to and value for diversity.
ESS07.04.07	Manage stress and control emotions.

ESS07.05 **Conduct and participate in meetings to accomplish work tasks.**

ESS07.05.01	Develop meeting goals, objectives and agenda.
ESS07.05.02	Assign responsibilities for preparing materials and leading discussions.
ESS07.05.03	Prepare materials for leading discussion.
ESS07.05.04	Assemble and distribute meeting materials.
ESS07.05.05	Conduct meeting to achieve objectives within scheduled time.
ESS07.05.06	Demonstrate effective communication skills in meetings.
ESS07.05.07	Produce meeting minutes including decisions and next steps.
ESS07.05.08	Use parliamentary procedure, as needed, to conduct meetings.

ESS07.06 **Employ mentoring skills to inspire and teach others.**

| ESS07.06.01 | Use motivational techniques to enhance performance in others. |
| ESS07.06.02 | Provide guidance to enhance performance in others. |

| **Essential Topic ESS08** | **ETHICS AND LEGAL RESPONSIBILITIES:** *Know and understand the importance of professional ethics and legal responsibilities.* |

ESS08.01 **Apply ethical reasoning to a variety of workplace situations in order to make ethical decisions.**

ESS08.01.01	Evaluate alternative responses to workplace situations based on legal responsibilities and employer policies.
ESS08.01.02	Evaluate alternative responses to workplace situations based on personal or professional ethical responsibilities.
ESS08.01.03	Identify personal and long-term workplace consequences of unethical or illegal behaviors.
ESS08.01.04	Explain personal and long-term workplace consequences of unethical or illegal behaviors.
ESS08.01.05	Determine the most appropriate response to workplace situations based on legal and ethical considerations.
ESS08.01.06	Explain the most appropriate response to workplace situations based on legal and ethical considerations.

ESS08.02   **Interpret and explain written organizational policies and procedures to help employees perform their jobs according to employer rules and expectations.**

| ESS08.02.01 | Locate information on organizational policies in handbooks and manuals. |
| ESS08.02.02 | Discuss how specific organizational policies and procedures influence a specific work situation. |

| **Essential Topic ESS09** | **EMPLOYABILITY AND CAREER DEVELOPMENT:** *Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.* |

ESS09.01   **Identify and demonstrate positive work behaviors and personal qualities needed to be employable.**

ESS09.01.01	Demonstrate self-discipline, self-worth, positive attitude, and integrity in a work situation.
ESS09.01.02	Demonstrate flexibility and willingness to learn new knowledge and skills.
ESS09.01.03	Exhibit commitment to the organization.
ESS09.01.04	Identify how work varies with regard to site, from indoor confined spaces to outdoor areas, including aerial space and a variety of climatic and physical conditions.
ESS09.01.05	Apply communication strategies when adapting to a culturally diverse environment.
ESS09.01.06	Manage resources in relation to the position (i.e. budget, supplies, computer, etc).
ESS09.01.07	Identify positive work-qualities typically desired in each of the career cluster's pathways.
ESS09.01.08	Manage work roles and responsibilities to balance them with other life roles and responsibilities.

ESS09.02   **Develop a personal career plan to meet career goals and objectives.**

ESS09.02.01	Develop career goals and objectives as part of a plan for future career direction.
ESS09.02.02	Develop strategies to reach career objectives.

ESS09.03   **Demonstrate skills related to seeking and applying for employment to find and obtain a desired job.**

ESS09.03.01	Use multiple resources to locate job opportunities.
ESS09.03.02	Prepare a résumé.
ESS09.03.03	Prepare a letter of application.
ESS09.03.04	Complete an employment application.
ESS09.03.05	Interview for employment.
ESS09.03.06	List the standards and qualifications that must be met in order to enter a given industry.
ESS09.03.07	Employ critical thinking and decision-making skills to exhibit qualifications to a potential employer.

ESS09.04   **Maintain a career portfolio to document knowledge, skills and experience in a career field.**

ESS09.04.01	Select educational and work history highlights to include in a career portfolio.
ESS09.04.02	Produce a record of work experiences, licenses, certifications and products.
ESS09.04.03	Organize electronic or physical portfolio for use in demonstrating knowledge, skills and experiences.

ESS09.05   **Demonstrate skills in evaluating and comparing employment opportunities in order to accept employment positions that match career goals.**

ESS09.05.01	Compare employment opportunities to individual needs and career plan objectives.
ESS09.05.02	Evaluate employment opportunities based upon individual needs and career plan objectives.
ESS09.05.03	Demonstrate appropriate methods for accepting or rejecting employment offers.

ESS09.06   **Identify and exhibit traits for retaining employment to maintain employment once secured.**

ESS09.06.01	Model behaviors that demonstrate reliability and dependability.
ESS09.06.02	Maintain appropriate dress and behavior for the job to contribute to a safe and effective workplace/jobsite.
ESS09.06.03	Complete required employment forms and documentation such as I-9 form, work visa, W-4 and licensures to meet employment requirements.
ESS09.06.04	Summarize key activities necessary to retain a job in the industry.
ESS09.06.05	Identify positive work behaviors and personal qualities necessary to retain employment.

ESS09.07		**Identify and explore career opportunities in one or more career pathways to build an understanding of the opportunities available in the cluster.**
	ESS09.07.01	Locate and identify career opportunities that appeal to personal career goals.
	ESS09.07.02	Match personal interest and aptitudes to selected careers.
ESS09.08		**Recognize and act upon requirements for career advancement to plan for continuing education and training.**
	ESS09.08.01	Identify opportunities for career advancement.
	ESS09.08.02	Pursue education and training opportunities to acquire skills necessary for career advancement.
	ESS09.08.03	Examine the organization and structure of various segments of the industry to prepare for career advancement.
	ESS09.08.04	Research local and regional labor (workforce) market and job growth information to project potential for advancement.
	ESS09.08.05	Manage employment relations to make career advancements.
ESS09.09		**Continue professional development to keep current on relevant trends and information within the industry.**
	ESS09.09.01	Use self assessment, organizational priorities, journals, Internet sites, professional associations, peers and other resources to develop goals that address training, education and self-improvement issues.
	ESS09.09.02	Read trade magazines and journals, manufacturers' catalogues, industry publications and Internet sites to keep current on industry trends.
	ESS09.09.03	Participate in relevant conferences, workshops, mentoring activities and in-service training to stay current with recent changes in the field.
ESS09.10		**Examine licensing, certification and credentialing requirements at the national, state and local levels to maintain compliance with industry requirements.**
	ESS09.10.01	Examine continuing education requirements related to licensing, certification, and credentialing requirements at the local, state and national levels for chosen occupation.
	ESS09.10.02	Examine the procedures and paperwork involved in maintaining and updating licensure, certification and credentials for chosen occupation.
	ESS09.10.03	Align ongoing licensing, certification and credentialing requirements to career plans and goals.
ESS09.11		**Examine employment opportunities in entrepreneurship to consider entrepreneurship as an option for career planning.**
	ESS09.11.01	Describe the opportunities for entrepreneurship in a given industry.

Essential Topic ESS10	**TECHNICAL SKILLS:** *Use of technical knowledge and skills required to pursue careers in all career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.*

ESS10.01	**Employ information management techniques and strategies in the workplace to assist in decision-making.**
ESS10.01.01	Use information literacy skills when accessing, evaluating and disseminating information.
ESS10.01.02	Describe the nature and scope of information management.
ESS10.01.03	Maintain records to facilitate ongoing business operations.
ESS10.02	**Employ planning and time management skills and tools to enhance results and complete work tasks.**
ESS10.02.01	Develop goals and objectives.
ESS10.02.02	Prioritize tasks to be completed.
ESS10.02.03	Develop timelines using time management knowledge and skills.
ESS10.02.04	Use project-management skills to improve workflow and minimize costs.

C. CLUSTER (FOUNDATION) KNOWLEDGE AND SKILLS

The following Cluster (Foundation) Knowledge and Skill statements apply to all careers in the Law, Public Safety, Corrections and Security Cluster. Persons preparing for careers in the Law, Public Safety, Corrections and Security Cluster should be able to demonstrate these skills in addtion to those found on the Essential Knowledge and Skills Chart.

A. Foundational Academic Expectations

B. Essential Knowledge and Skills

C. Cluster (Foundation) Knowledge and Skills

D. Pathway Knowledge and Skills

Cluster Topic LWC01	**ACADEMIC FOUNDATIONS:** *Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster.*
LWC01.01	**Apply English Language Arts knowledge and skills to law, public safety, security and corrections careers to enable pursuit of a full range of careers and post-secondary education opportunities associated with the cluster.**
LWC01.01.01	Demonstrate competence in applying Language Arts knowledge and skills in law, public safety, security and corrections careers.
Sample Indicators	Apply the reading process and strategies to directions or tasks that are relatively short, with limited categories of information, directions, concepts, and vocabulary.
	Demonstrate competence in using various information sources, including knowledge bases and technical texts to perform specific tasks.
	Demonstrate competence in writing and editing documents, using correct grammar and punctuation.
	Demonstrate competence in speaking to provide, distribute, find information.
	Demonstrate competence in making formal and informal oral presentations, including selecting and using media.
	Adapt listing strategies to utilize verbal and nonverbal content of communication.

LWC01.02 **Apply Mathematics knowledge and skills to law, public safety, security and corrections careers to enable pursuit of a full range of careers and post-secondary education opportunities associated with the cluster.**

LWC01.02.01 Demonstrate competence in applying Mathematics knowledge and skills in law, public safety, security and corrections careers.

Sample Indicators Add, subtract, multiply, and divide mixed numbers, fractions, and decimals.

Mentally add, subtract, multiply, and divide, whole numbers.

Apply basic methods of measurement.

Apply advanced methods of measurement.

Apply advanced concepts of data analysis and distributions.

Apply a variety of strategies within the problem-solving process.

Apply measurements for distance.

Apply precision measurements.

LWC01.03 **Apply Science knowledge and skills to law, public safety, security and corrections careers to enable pursuit of a full range of careers and post-secondary education opportunities associated with the cluster.**

LWC01.03.01 Demonstrate competence in applying Science knowledge and skills in law, public safety, security and corrections careers.

Sample Indicators Demonstrate the use of common laboratory equipment and procedures.

Analyze the effect of chemicals on humans and plants.

Know the forms energy takes, its transformation from one form to another, and its relationship to matter.

Cluster Topic LWC02	**COMMUNICATIONS:** *Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information.*
	No additional statements in thie topic beyond those found in the Essential Knowledge and Skills Chart.

Cluster Topic LWC03	**PROBLEM-SOLVING AND CRITICAL THINKING:** *Solve problems using critical thinking skills (analyze, synthesize, and evaluate) independently and in teams. Solve problems using creativity and innovation.*

LWC03.01 **Formulate ideas, proposals and solutions to address law, public safety, security and corrections related problems to ensure effective and efficient delivery of safety and/or security services to targeted consumers.**

LWC03.01.01 Use logical constructions to formulate ideas, proposals, and solutions to problems.

Sample Indicators State the problem in clear terms.

Distinguish between inductive and deductive reasoning.

Research and analyze pertinent information.

Develop and evaluate alternative solutions.

Use persuasive techniques to advocate one alternative solution.

LWC03.01.02   Analyze and evaluate ideas, proposals, and solutions to problems using basic forms of logic and techniques designed to encourage sound reasoning.

Sample Indicators   Evaluate the underlying assumptions.

Evaluate the logic and reasoning used to develop a solution.

Formulate strategies used in common situations to inform, persuade, or entertain.

Create arguments based on facts, laws, or regulations.

Use parallel arguments to advocate two opposing solutions.

LWC03.02   **Apply critical thinking strategies to team discussions around solutions that address, law, public safety, security and corrections related problems to contribute to formulating effective solutions.**

LWC03.02.01   Demonstrate behaviors that model skills associated with effectively working as part of a team to solve law and security cluster related problems and issues.

Sample Indicators   Work with others to define problem.

Share ideas, facts, information, and/or data with others.

Participate in small or large group discussions.

State selected solutions in a persuasive manner.

Accept group decision even when different from personal solution alternative.

Support implementation of group solution to problem.

Cluster Topic LWC04	**INFORMATION TECHNOLOGY APPLICATIONS:** *Use information technology tools specific to the career cluster to access, manage, integrate, and create information.*

LWC04.01   **Demonstrate the effective use of computer based equipment (containing embedded computers, or processors) in order to control electromechanical devices commonly used in conducting work within the law and public safety practice.**

LWC04.01.01   Execute the steps involved in the operation of a computer driven machine to accomplish a common work tasks.

Sample Indicators   Operate equipment and machine with assistance.

Secure needed supplies and resources.

Follow power-up and log-on procedures.

Interact with/respond to system messages using console device.

Run applications/jobs in accordance with processing procedures.

Follow log-off and power-down procedure(s).

LWC04.01.02   Interpret information in installation and operation manuals in order to install and operate a computer driven machine/equipment for the first time.

Sample Indicators   Access needed information using appropriate reference materials.

LWC04.01.03   Troubleshoot computer driven equipment and machines when a problem occurs and access relevant support sources on an as-needed basis during troubleshooting.

Sample Indicators	Test system using diagnostic tools/software.
	Repair/replace malfunctioning hardware.
	Reinstall software as needed.
	Recover data and/or files.
	Restore system to normal operating standards.
	Complete failure/trouble reports correctly.
	Access in-house or external support as needed.

Cluster Topic LWC05	**SYSTEMS:** *Understand roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. Identify how key organizational systems affect organizational performance and the quality of products and services. Understand global context of industries and careers.*

No additional statements in thie topic beyond those found in the Essential Knowledge and Skills Chart.

Cluster Topic LWC06	**SAFETY, HEALTH AND ENVIRONMENTAL:** *Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Follow organizational policies and procedures and contribute to continuous improvement in performance and compliance.*

LWC06.01   **Assess and implement measures to maintain safe and healthful working conditions in a law and public safety environment in order to protect employees' well being.**

LWC06.01.01   Assess workplace conditions with regard to safety and health of employees using data collected through observations and experience.

Sample Indicators   Identify the types of risk of injury/illness at work.

Identify those who are susceptible to risk of injury/illness at work.

Describe ways to positively impact occupational safety and health.

LWC06.01.02   Recommend improvements for an issue related to the safety and health of employees based upon an assessment of the workplace conditions.

LWC06.02   **Complete work tasks in accordance with applicable employer rules concerning occupational safety and health common to the law, public safety, security and corrections industry in order to maintain employee rights and employer obligations.**

LWC06.02.01   State the rationale for various rules and laws designed to promote safety and health in the workplace.

Sample Indicators   Identify key rights of employees related to occupational safety and health.

Identify the responsibilities of employers related to occupational safety and health.

Explain the role of government agencies in providing a safe workplace.

LWC06.03   **Assess and implement methods to reduce sources of office, facility and mobile operations accident hazards common in the law, public safety, security and corrections industry in order to promote a safe and accident free working environment.**

LWC06.03.01	Demonstrate the steps involved in preventing common office, facility, and mobile operations accidents.

Sample Indicators
- Identify and describe common hazards in the workplace.
- Identify and describe major sources of information about hazards in the workplace (e.g., MSDS, work procedures, exposure control plans, training materials, labels, and signage).
- Identify sources of combustible/flammable materials, fire and emergencies to establish a fire safe environment.
- Interpret safety signs and symbols.

LWC06.04 Assess and control common group health hazards common to the law and public safety environment in order to promote a healthy working environment.

LWC06.04.01	Demonstrate how to comply with protocols established for maintaining group health in the workplace based upon information from an assessment of group health.

Sample Indicators
- Identify procedures necessary for maintaining a safe work area.
- Identify methods to correct common hazards.
- Identify methods for disposing of hazardous materials.

- Demonstrate principals of safe physical movement to avoid slips, trips, and spills.
- Inspect and use protective equipment (PPE).

LWC06.05 Research and evaluate records and reports regarding the safety, health and environmental performance in a workplace to identify potential hazards and workplace problems common to law, public safety, security and corrections professions.

LWC06.05.01	Execute the steps involved in conducting an audit designed to identify various health, safety and environmental hazards.

Sample Indicators
- Research typical responsibilities of Law, Public Safety and Security professionals.
- Identify and describe typical workplace health hazards.
- Identify and describe typical workplace safety hazards.
- Identify and describe typical workplace environmental hazards.

LWC06.05.02	Analyze workplace accidents and incidents to identify potential health, safety and environmental workplace problems.

Sample Indicators
- Perform regular audits and inspections find potential problems.
- Document inspections and submit reports.
- Interview those involved in incident using all communications skills.
- Secure and document observations of incident scene.
- Document information on incident using writing skills.
- Define the term hazardous material.
- Describe the effects of hazardous material events on society.
- Identify the concepts of toxicology.

- Obtain local information about transporting hazardous material and report on findings.
- Outline a typical Incident Management System Report.

LWC06.06

Execute the procedures involved with administering basic first aid and CPR in order to respond to workplace emergencies that arise in the law, public safety, security and corrections workplace.

LWC06.06.01   Execute the procedures used to administer basic first aid for a variety of workplace emergencies.

Sample Indicators   Control bleeding.

Emergency aid procedures for burns.

Emergency aid procedures for treatment of shock.

Emergency aid procedures for broken bones and severe sprains.

Emergency aid procedures for poisoning.

Emergency aid procedures for treating exposure to the elements.

LWC06.06.02   Execute the procedures used to administer CPR in the event of a workplace emergency.

Sample Indicators   Describe the signs that CPR is needed.

Describe the techniques for CPR in different situations.

Demonstrate the effective use of at least one CPR technique.

Become CPR certified.

Cluster Topic LWC07	**LEADERSHIP AND TEAMWORK:** *Use leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.*

No additional statements in thie topic beyond those found in the Essential Knowledge and Skills Chart.

Cluster Topic LWC08	**ETHICS AND LEGAL RESPONSIBILITIES:** *Know and understand the importance of professional ethics and legal responsibilities.*

LWC08.01

Analyze and summarize the legal responsibilities associated with different roles and functions within law, public safety, security and corrections organizations in order to demonstrate a commitment to professional, ethical behavior.

LWC08.01.01   Examine real world situations involving the application of ethics and a code of professional conduct.

Sample Indicators   Cite authority for ethical decisions.

Describe an approach to a real world situation.

Define professional responsibility.

Provide examples of disciplinary procedures for the selected specialty careers.

Practice ethical behavior.

LWC08.02

Analyze and synthesize information related to the various laws, ordinances, regulations and organizational rules that apply to careers in law, public safety, security and corrections in order to demonstrate understanding of expectations for employees in the field.

LWC08.02.01   List laws, ordinances, regulations and organizational rules of conduct associated with assigned duties for selected careers in the cluster.

Sample Indicators	Pass tests on required laws and rules of conduct.	
	Perform assigned duties while complying with laws, ordinances, regulations, and organizational rules.	
	Establish location of copies of laws, ordinances, regulations, and organizational rules.	
	Report violations of a legal or of an ethical nature through the proper chain of command.	
LWC08.02.02	Demonstrate behaviors that model the establishment and maintenance of obedience to the law and ethical standards.	
Sample Indicators	Limit involvement with the law and criminal court system to qualify for employment.	
	Follow ethical conduct guidelines established by community standards.	

LWC08.03   **Evaluate and apply strategies for responding to unethical or illegal actions of individuals and organizations in order to demonstrate how to respond to unethical situations that arise within law and public safety.**

LWC08.03.01	Compare and contrast the results achieved from implementing alternative strategies for responding to unethical or illegal actions.
Sample Indicators	Given a specific situation, outline strategies for responding to unethical and illegal actions in different workplace situations by individuals.
	Evaluate alternative responses to unethical and illegal actions by individuals and select and justify best approach.
LWC08.03.02	Recommend procedures and rationale for applying the best strategy after thorough consideration of multiple alternatives.
Sample Indicators	Given a specific situation, outline strategies for responding to unethical and illegal actions in different workplace situations by organizations.
	Evaluate alternative responses to unethical and illegal actions by organizations and select and justify best approach.

Cluster Topic LWC09	**EMPLOYABILITY AND CAREER DEVELOPMENT:** *Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.*

LWC09.01   **Interpret and apply written policies, procedures and rules to perform effectively within the Law, Public Safety, Security and Corrections workplace.**

LWC09.01.01	Locate appropriate information on organizational policies in handbooks and manuals.
Sample Indicators	Identify the contents of various organizational publications.
	Select the appropriate document(s) as reference for the situation.
LWC09.01.02	Analyze how specific organizational policies and rules, if applied, may influence specific situations in the workplace.
Sample Indicators	Locate and identify specific organizational policy, rule or procedure to assist with a given situation.
	Explain specific organizational policy, rule or procedure to improve a given situation.

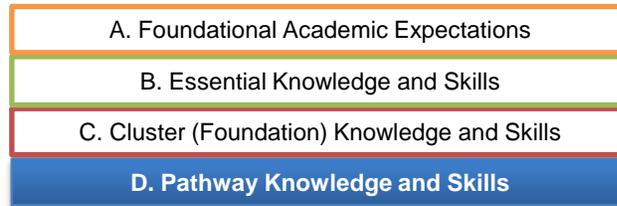|	
LWC09.02	**Assess and evaluate career opportunities in one or more career pathways in the Law, Public Safety, Security and Corrections field to broaden awareness of careers available in the industries related to the career cluster.**
LWC09.02.01	Research and match career opportunities based upon their appeal with personal career goals.
Sample Indicators	Locate and interpret career information for at least one career cluster.
	Identify job requirements for career pathways.
	Identify educational and credentialing requirements for career cluster and pathways.
LWC09.02.02	Match personal interests and aptitudes to careers when researching opportunities within the career pathways.
Sample Indicators	Identify personal interests and aptitudes.
	Identify job requirements and characteristics of selected careers.
	Compare personal interests and aptitudes with job requirements and characteristics of career selected.
	Modify career goals based on results of personal interests and aptitudes with career requirements and characteristics.
LWC09.02.03	List career options and related requirements for success in multiple career fields associated with Law, Public Safety, Security and Corrections.
LWC09.02.04	Summarize both the advantages and disadvantages associated with common Law, Public Safety, Security and Corrections Careers.
LWC09.03	**Analyze the characteristics of different career fields within the Law, Public Safety, Security and Corrections cluster to develop a personal perspective on the nature of the work, entry-level requirements, career paths and challenges.**
LWC09.03.01	List responsibilities, requirements and advancement opportunities, as well as emotional and physical challenges of employees in selected careers.
Sample Indicators	Discuss career requirements contained within selected careers of the Law, Public Safety and Security Cluster.
	Compare selected careers in the Law, Public Safety and Security careers with other career cluster options.
	Assess one's own abilities to enter a Law, Public Safety and Security career.
	Outline a realistic career development plan.
LWC09.03.02	Compare and contrast the characteristics of selected careers.
Cluster Topic LWC10	**TECHNICAL SKILLS:** *Use the technical knowledge and skills required to pursue the targeted careers for all pathways in the career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.*
	No additional statements in thie topic beyond those found in the Essential Knowledge and Skills Chart.

D. PATHWAY KNOWLEDGE AND SKILLS

The following knowledge and skill statements apply to all careers in the Emergency and Fire Management Services Pathway. The statements are organized within nine topics.

A. Foundational Academic Expectations
B. Essential Knowledge and Skills
C. Cluster (Foundation) Knowledge and Skills
D. Pathway Knowledge and Skills

Pathway Topic LWPB01	COMMUNICATION

LWPB01.01	**Speak and write using communication equipment and platforms common to emergency and fire management services in order to communicate effectively and professionally while facilitating work duties.**
LWPB01.01.01	Execute speaking techniques and strategies used to communicate specific ideas to various audiences.
Sample Indicators	Focus oral and written communications.
	Speak clearly to be understood by others.
	Tailor communication to specific audiences in different situations.
	Communicate using radio equipment.
LWPB01.01.02	Execute writing techniques and strategies used to communicate specific ideas to various audiences.
Sample Indicators	Complete forms using computers.
	Complete written forms.

LWPB01.02	**Operate radio communication systems common to emergency and fire management services in order to convey and receive urgent information.**
LWPB01.02.01	Execute steps involved in using all types of radio equipment common to emergency and fire management service audiences.
Sample Indicators	Identify a repeater radio system.
	Use a repeater radio system.
	Use clear and concise terminology.
	Differentiate among a hand held radio, base unit radio and mobile radio.
	Operate a hand held radio correctly.
	Operate a base unit radio correctly.
	Operate a mobile radio correctly.

Pathway Topic LWPB02	PROBLEM-SOLVING AND CRITICAL THINKING

LWPB02.01	**Manage an incident scene as the first responder using emergency response skills in order to facilitate on-scene accident activities until relieved by a superior officer.**
LWPB02.01.01	Execute protocols in emergency management response when working with an on-scene accident.
Sample Indicators	Respond logically.

Use appropriate course of action to address emergency scene.
Use training and past experiences to make decisions quickly.
Obtain available resources as needed.
Use resources to solve emergency problems.
Recognize, interpret, and overcome obstacles.

Pathway Topic LWPB03	**INFORMATION TECHNOLOGY APPLICATIONS**

LWPB03.01 | **Utilize up-to-date information technology applications to facilitate the management of emergency and fire management situations.**

LWPB03.01.01 | Execute protocols for managing emergency situations using radio equipment, computer technology and public address/warning systems.

Sample Indicators | Operate information technology equipment as required for the specific job.

Complete basic and recurring training program on information technology applications.

LWPB03.01.02 | Model the fundamental skills necessary to operate word processing and spreadsheet software common to emergency and fire management services.

Sample Indicators | Keyboard accurately.
Pass examinations on word processing and spread sheet programs.

Pathway Topic LWPB04	**SYSTEMS**

LWPB04.01 | **Model behaviors, strategies and protocols that demonstrate an understanding of the objectives and a commitment to the mission of emergency and fire services in order to carry out duties while responding to a variety of emergency incidents.**

LWPB04.01.01 | Practice response procedures used to respond to small and catastrophic emergency incidents.

Sample Indicators | Participate in training courses that prepare for emergency incidents.
Achieve passing scores on written and performance evaluations.

Demonstrate use of personal and other equipment used in emergency situations.
Maintain emergency equipment within established criteria.
Document training and equipment checks.
Show a working knowledge of mitigation techniques.

Pathway Topic LWPB05	**SAFETY, HEALTH AND ENVIRONMENTAL**

LWPB05.01 | **Execute safety procedures and protocols associated with local, state and federal regulations in order to effectively and safely conduct duties within fire and emergency management services.**

LWPB05.01.01 | State local, state and federal regulations pertaining to safety issues.

Sample Indicators	Pass tests on local, state and federal regulations governing pertinent safety issues.
	Use correct reporting procedures when safety regulations are not followed.
	Evaluate emergency situations and select procedures that reduce personal safety risks.
	Seek assistance from more experienced personnel in emergency situations that are unfamiliar.
LWPB05.01.02	Execute protocols for handling hazardous materials.
Sample Indicators	Pass written, oral, and performance evaluations on handling hazardous materials.
	Train on medical, fire, environmental, technological, or other situations where hazardous materials are present.
	Perform practice exercises on proper procedures to handle hazardous materials.
LWPB05.01.03	Execute procedures to maintain personal safety.

Pathway Topic LWPB06	LEADERSHIP AND TEAMWORK

LWPB06.01   **Establish an institutional professional growth plan in order to develop team building and leadership skills common to guiding roles within the emergency and fire management environment.**

LWPB06.01.01	Execute individual and collective tasks that demonstrate effective functioning within a group environment.
Sample Indicators	Identify one's position in the organization.
	Outline skills involved with one's position.
	Demonstrate the fundamentals of team building.
	Develop team-building skills with frequent supervisor feedback.
	Evaluate team-building and leadership skills during training exercises and actual emergencies.
LWPB06.01.02	Model behaviors that demonstrate specific leadership qualities valued among groups within the emergency services environment.
Sample Indicators	Assume leadership roles when asked.
	Demonstrate leadership by showing an understanding of procedures while using critical thought.
	Demonstrate leadership that meets established criteria.
	Pass written and oral examinations on leadership performance encompassing technical and procedural knowledge.

Pathway Topic LWPB07	ETHICS AND LEGAL RESPONSIBILITIES

LWPB07.01   **Summarize laws, ordinances, regulations, and organizational rules that define guidelines governing emergency and fire management service in order to perform assigned duties within a set of established rules and protocols.**

LWPB07.01.01	State laws, ordinances, regulations and organizational rules of conduct used in performing assigned duties.
Sample Indicators	Pass tests on required laws and rules of conduct.

	Perform assigned duties while complying with laws, ordinances, regulations, and organizational rules.
	Establish location of copies of laws, ordinances, regulations, and organizational rules.
	Report violations of a legal or of an ethical nature through the chain of command.
LWPB07.01.02	Establish and maintain a background of adherence to the law to demonstrate ethical conduct.
Sample Indicators	Limit involvement with the law and criminal court system to qualify for employment.
	Follow ethical conduct guidelines established by community standards.

Pathway Topic LWPB08	EMPLOYABILITY AND CAREER DEVELOPMENT
LWPB08.01	**Compare and contrast relevant aspects of different career fields available for professionals in fire and emergency management services in order to demonstrate an understanding of the opportunities available in the pathway of related careers.**
LWPB08.01.01	List responsibilities of a beginning employee in emergency, fire, and emergency medical technician/first responder services career to understand the emotional and physical challenges of the fields.
Sample Indicators	Discuss career requirements contained within emergency, fire, and medic services pathway.
	Compare emergency and fire services careers with other career options.
	Assess one's own abilities to enter an emergency and fire services career.
	Outline a realistic career development plan.

Pathway Topic LWPB09	TECHNICAL SKILLS
LWPB09.01	**Execute protocols for handling emergency situations that range from minor medical and fire emergencies to area-wide incidents to demonstrate the application and enhancement of key skills used to respond effectively in such instances.**
LWPB09.01.01	Model behaviors that demonstrate application of critical thinking skills used to perform in emergency response situations.
Sample Indicators	Demonstrate basic emergency response knowledge and skills.
	Apply knowledge of emergency response with training subjects.
	Use critical thinking skills in addressing emergency situations.
	Pass written, oral, and practical application tests of emergency situations.
LWPB09.01.02	Participate in training and continuing education efforts commonly used to enhance skills necessary to perform effectively in emergency response situations.
Sample Indicators	Train to maintain emergency response skills.
	Practice emergency response to maintain and upgrade abilities.
	Assess emergency response training performance based on established criteria.
	Create customized training plans.
	Implement training plan with qualified instructors.

LWPB09.02   **Execute operational and repair requirements when using equipment in order to maintain functional equipment ready for use in fire and medical emergency situations.**

LWPB09.02.01   Execute the use of maintenance schedules to keep equipment ready for needed job assignments.

Sample Indicators   Possess basic knowledge of emergency equipment and its use.

Operate emergency equipment.

Maintain emergency equipment.

Follow maintenance plan cycle.

Request maintenance assistance when needed.

Repair then return defective equipment to service within established criteria.

Follow equipment maintenance plan.

Document equipment maintenance.

Perform preventive maintenance and mitigation techniques.

LWPB09.03   **Examine equipment and summarize the various applications for equipment commonly used in emergency and fire management services in order to ensure one is prepared to use the equipment when needed.**

LWPB09.03.01   Categorize a variety of ladder trucks, including snorkel, tiller and platform, based upon their application in emergency situations.

Sample Indicators   Identify a snorkel truck.

List uses of snorkel truck.

Use snorkel truck correctly.

Identify a tiller truck.

List uses of tiller truck.

Use tiller truck correctly.

Identify a platform truck.

List uses of platform truck.

Use platform truck correctly.

LWPB09.03.02   Categorize a variety of pumpers, including standard and quint, based upon their application in emergency situations.

Sample Indicators   Identify a standard pumper.

List uses of standard pumper.

Use standard pumper correctly.

Identify a quint pumper.

List uses of quint pumper.

Use quint pumper correctly.

LWPB09.03.03   Categorize a variety of special units, including cascade, light tower, rescue, command post, heavy rescue, and brush truck based upon their operational guidelines and purpose in emergency situations.

Sample Indicators   Identify a cascade unit.

Explain purpose of cascade unit.

Identify a light tower.

Explain purpose of light tower.

Identify a rescue unit.

Explain purpose of rescue unit.

Identify a command post.

Explain purpose of command post.

Identify a heavy rescue.

Explain purpose of heavy rescue.

Identify a brush truck.

Explain purpose of a brush truck.

LWPB09.04 | **Design and implement an appropriate Incident Command System in order to ensure the effective management of logistical procedures at an incident scene.**

LWPB09.04.01 | Synthesize and implement an action plan that defines and adequately evaluates the elements of an emergency scene.

Sample Indicators | Determine what is involved at fire scene that may have contributed to incident.

Analyze fire scene for possible approaches.

Notify appropriate agencies for support (i.e. electric company, gas, etc.).

Formulate an action plan.

Implement action plan.

LWPB09.04.02 | Establish a prioritization system to guide actions during implementation of an action plan in the event of an emergency.

Sample Indicators | Select appropriate action plan.

Select equipment needed.

Determine mitigation effectiveness.

Explain importance of establishing priorities.

LWPB09.04.03 | Execute steps involved in managing logistical procedures at the incident.

Sample Indicators | Identify each piece of equipment used.

Return each piece of equipment to service.

Fill out reports.

LWPB09.05 | **Recognize materials as hazardous using common codes and icons used in the fire and emergency management environment in order to properly handle potentially hazardous material.**

LWPB09.05.01 | Summarize shipping and storage documents related to hazardous materials.

Sample Indicators | List general chemical manufacturers.

List local chemical manufacturers.

LWPB09.05.02 | Compare and contrast hazardous materials using markings and standard classifications as noted in appropriate reference literature.

Sample Indicators | List the nine classifications of hazardous materials (haz/mat).

Recognize the 704 marking system.

Use the 704 marking system to identify haz/mat.

Use the DOT handbook for haz/mat.

Locate chemicals and identify their hazards.

LWPB09.05.03 | Analyze reference material and catalogs to identify a list of different types of Haz/mat responders that may be utilized in emergency situations.

Sample Indicators | Differentiate among three levels of haz/mat certification (operations, technician, and specialist).

Analyze privately owned and governmental based haz/mat clean-up teams.

LWPB09.06   **Analyze and summarize hazardous materials transportation modes in order to assure the safe transport of substances from fire and medical emergency scenes.**

LWPB09.06.01   Summarize the various modes of transportation for hazardous materials.

Sample Indicators   List all means of transportation.
State the minimum pounds of hazardous materials that can be transported without being labeled.
Explain the safety procedures required to transport selected haz/mat.
Plan and designate haz/mat routes.

LWPB09.07   **Implement public relations plans involving key community audiences and the local fire and emergency management service facilities in order to enhance public awareness and safety in fire and emergency situations.**

LWPB09.07.01   Examine facilities to identify opportunities for implementation of a tour program.

Sample Indicators   Develop a tour program.
Handout materials to tour groups.

LWPB09.07.02   Develop a public relations program for local fire and emergency management service facilities that reaches out to key audiences such as elementary and secondary school students.

Sample Indicators   Develop an elementary school program including fire prevention and fire safety topics.
Implement an elementary school program including fire prevention and fire safety topics.

Develop a secondary school program including fire prevention and fire safety topics.

Implement a secondary school program including fire prevention and fire safety topics.
Participate in question and answer sessions to increase knowledge regarding fire safety and prevention.

LWPB09.08   **Recommend special operation rescue teams to address situations with unusual needs in order to demonstrate the ability to recognize emergencies that have unusual conditions.**

LWPB09.08.01   State factors that characterize emergencies where special operations units/teams are needed.

Sample Indicators   Identify emergencies when a special operations team would be needed.
Identify certifications needed.
Identify appropriate gear.
List components of special operations unit.

LWPB09.09   **Examine and summarize the various elements and issues involved in using Preparedness and Response Systems during disaster situations in order to demonstrate understanding of the systems available for managing large scale disasters.**

LWPB09.09.01   Summarize the national elements of the preparedness system.
Sample Indicators   List key elements of the National Response Plan (NRP).
List key elements of National Incident Management System (NIMS).

> Describe an example of how these elements work in an actual or scenario based situation.

LWPB09.09.02	Summarize the elements of the Incident Command System (ICS).
Sample Indicators	State the overall objectives of the ICS.
	Describe the primary functions of the ICS.
	List the typical agencies that are involved in the ICS.
LWPB09.09.03	Summarize the roles of emergency/first responders in Preparedness and Response Systems during and after disaster situations.
Sample Indicators	List the types of first responders one normally would find at a variety of disaster scenes and their roles.
	Explain the typical command structure.
	Describe the role of fire and emergency services in the ICS.
	Describe the role of law enforcement in the ICS.
	Describe the role of the FBI if the disaster is related to foreign or domestic terrorism.

LWPB09.10   **Examine and summarize the key functions and techniques of critical infrastructure protection in order to assure protection of potential targets for terrorism and/or natural disasters.**

LWPB09.10.01	Summarize the concept of critical infrastructure protection.
Sample Indicators	List the sectors that are considered as critical infrastructure.
	Describe how the crippling of one infrastructure might affect others.
	Analyze the role of critical infrastructure protection.
LWPB09.10.02	Summarize the key infrastructure protection tactics for protecting potential targets of terrorists.
Sample Indicators	Identify one or more potential targets of terrorists in the community or region.
	Identify actual or potential vulnerabilities of a potential terrorist target, through a vulnerability assessment.
	Develop a general plan for protecting the possible target.
LWPB09.10.03	Summarize the key infrastructure protection tactics for protecting potential targets of natural disaster.
Sample Indicators	Identify one or more potential targets of natural disasters in the community or region.
	Identify actual or potential vulnerabilities of a possible natural disaster target, through a vulnerability assessment.
	Develop a general plan for protecting the potential target.