

EMERGENCY MEDICAL RESPONDER

INDUSTRY SECTOR | Public Services

PATHWAY | Emergency Response



COURSE ESSENTIAL QUESTION:

Would you know what to do to save lives in the event of an emergency...?

COURSE DESCRIPTION:

The Emergency Responder course prepares the EMR student to provide emergency prehospital assessment and care for patients of all ages with a variety of medical conditions and traumatic injuries. Areas of study include an introduction to emergency medical services systems, roles and responsibilities of EMRs, anatomy and physiology, medical emergencies, trauma, and special considerations for working in the prehospital setting. Course fulfills California Code of Regulations Title 22 requirements and meets the American Heart Association CPR prerequisite and recommended preparation for admission to the EMT program. Integrated throughout the course are Common Core State Standards and Career Technical Education Standards, which include safety, communication, technology, ethics, career planning and other employability skills.

INFORMATION:

- A. **Pre-requisite:** 16 years old or a 11th / 12th grade.
- B. **Abilities Required:** None
- C. **Dress Requirement and Grooming:** As per Industry Standard
- D. **Students must master 75% of the certificate competencies to receive a certificate.**
- E. **Fee:** N/A
- F. **Course Length:** 180 hours
- G. **Textbook:** Emergency Medical Responder: First On Scene, 10th Edition
- H. **UC a-g Approved:** Yes
- I. **Industry Certification(s):** Yes
- J. **Sequencing to Include a Capstone:** No
- K. **Community College Articulation:** Yes
- L. **Common Core Alignment:** Yes
- M. **Community Classroom:** Yes
- N. **Career Technical Student Organization:** No
- O. **Work-Based Learning:** No

IDEA/THEME: UNIT 1. The Emergency Medical Responder

ENGAGING TITLE:

ESSENTIAL QUESTION: *What is an EMR and what do they do?*

INSTRUCTIONAL HOURS: 30.00 HOURS

Unit Overview

This unit introduces the student to the EMS System and discusses medical, legal and ethical issues faced while awaiting higher levels of care. This unit will emphasize the importance of maintaining the physical, emotional and psychological well-being of the EMR while addressing industry specific risk factors. Additionally, the EMR student will be introduced to the anatomy of different body systems and their functions in particular, the cardio-respiratory, circulatory, musculoskeletal and integumentary system.

Certificate Competencies

- Describes introductory aspects of emergency medical care
- Recognizes emotional aspects of emergency care, stress management, critical incident stress debriefing.
- Recognizes scene safety, body substance isolation, personal protection equipment, and safety precautions.
- Demonstrates knowledge of the body systems, anatomy, physiology, and topographic anatomy.
- Demonstrates assessing and recording of a patient's vital signs and a SAMPLE history.
- Demonstrates knowledge of body mechanics, lifting and carrying techniques, lifting and moving skills.

Key Assignments

- Research the roles, responsibilities and scope of practice of the Emergency Medical Responder and complete a 500 word essay differentiating it from the other levels of pre-hospital providers (i.e. EMT, AEMT, and Paramedic) according to a provided rubric.
- Students will demonstrate mastery of proper glove removal as per AAOS Skill Sheet 02-01.
- In a group setting, create a model of an assigned body system and give a presentation of its key parts, functions and commonly associated injuries and/ or illness according to a provided rubric.
- Students will demonstrate mastery of proper use of body mechanics when lifting and/ or moving patients as per AAOS Skill Sheet 03-01 – 03-06.

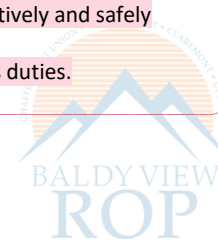


Anchor Standards

- 6.0 Health and Safety. Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Public Services sector workplace environment.
- 6.3 Use health and safety practices for storing, cleaning, and maintaining tools, equipment, and supplies.
 - 6.4 Practice personal safety when lifting, bending, or moving equipment and supplies.
 - 6.5 Demonstrate how to prevent and respond to work-related accidents or injuries; this includes demonstrating an understanding of ergonomics,
 - 6.6 Maintain a safe and healthful working environment.
- 8.0 Ethics and Legal Responsibilities. Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms.
- 8.2 Identify local, district, state, and federal regulatory agencies, entities, laws, and regulation related to the Public Services industry sector.
 - 8.3 Demonstrate ethical and legal practices consistent with Public Services sector workplace standards.
 - 8.4 Explain the importance of personal integrity, confidentiality, and ethical behavior in the workplace.
 - 8.7 Conform to rules and regulations regarding sharing of confidential information, as determined by Public Services sector laws and practices.
- 10.0 Technical Knowledge and Skills. Apply essential technical knowledge and skills common to all pathways in the Public Services sector, following procedures when carrying out experiments or performing tasks.
- 10.1 Interpret and explain terminology and practices specific to the Public Services sector.

Pathway Standards

- B.1.0 Analyze the characteristics of different career fields within the Emergency Response pathway to develop a perspective on the nature of the work, entry-level requirements, career options, and expectations.
- B1.1 Understand the responsibilities, requirements, and advancement opportunities in emergency response careers.
 - B1.2 List the standards for emergency response employee qualifications, training, and certification.
- B4.0 Execute safety procedures and protocols associated with local, state, and federal regulations in order to effectively and safely conduct duties within fire and emergency services.
- B4.2 Know and use the appropriate personal protective equipment (PPE) required for emergency services duties.
 - B4.5 Demonstrate strategies to identify and eliminate hazards.



Commented [CL1]: Aligned with Key assignment 2 & 4

Commented [CL2]: Common Core Standards
(Direct alignment with RSTS 9-10, 11-12.4)
(Direct alignment with SLS 11-12.1d)
(Direct alignment with WS 11-12.6)

RESOURCES: UNIT 1.

Chapter 1: EMS Systems (Pg. 2)

- Objectives: #2 (Pg. 4), #7 (Pg. 8-9), #8 (Pg. 9, 11) #10 (Pg. 11) #11 (Pg. 12)
- Chapter 1 Worksheet Packet

Chapter 2: Workforce Safety and Wellness (Pg. 16)

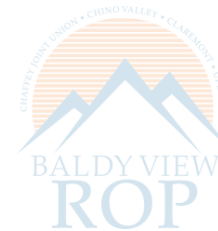
- Objectives: #2 (Pg. 18), #3 (Pg. 18), #4 (Pg. 18), #5 (Pg. 19), #7 (Pg. 23), #9 (Pg. 23-24), #10 (Pg. 24-25), #12 (Pg. 24), #13 (Pg. 25-26), #15 (Pg. 27)
- Chapter 2 Worksheet Packet
- Skill Drill 02-01 "Proper Removal of Medical Gloves"

Chapter 3: Lifting and Moving Patients (Pg. 33)

- Objectives: #1 (Pg. 34), #2 (Pg. 34-35), #3 (Pg. 35), #5 (Pg. 44-46)
- Chapter 3 Worksheet Packet
- Skill Sheet 03-02 "Direct Ground Lift"
- Skill Sheet 03-04 "Four Person Log Roll"
- Skill Sheet 03-05 "Preparing a Blanket Roll"
- Videos:
https://youtu.be/D_XN2Lq4QAY?list=PLuJrjZBsXNv3bCRYMadblePTt1aaeVxzP "Patient Lifting & Moving"
https://youtu.be/gF_bvR3ZX1Y "Stair Chair"

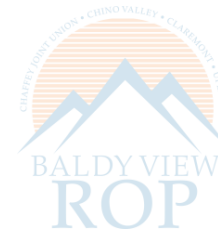
Chapter 4: Medical, Legal and Ethical Issues (Pg. 61)

- Objectives: #1, (Pg. 62), #4 (Pg. 63), #5 (Pg. 63), #6 (Pg. 63), #7 (Pg. 63-64), #8 (Pg. 64), #9 (Pg. 64), #10 (Pg. 67), #12 (Pg. 68)
- Chapter 4 Worksheet Packet
- Videos:
<https://youtu.be/epuTdgq2U0c> "EMS Selfie War"



Chapter 6: The Human Body (Pg. 89)

- Objectives: #1 (Pg. 90), #2 (Pg. 91-92), #3 (Pg. 92-93), #4 (Pg. 93-95), #9 (Pg. 97), #11 (Pg. 100)
- Chapter 6 Worksheet Packet
- Websites:
 - <https://zygotebody.com/> "Interactive Anatomy"
- Videos:
 - <https://www.youtube.com/channel/UCJayviGvKEblkA3KYK1BQQw> "Khan Academy Medicine Videos"
 - <https://youtu.be/kvHWnJwBkmo> "Anatomy Terms Explained"
 - <https://youtu.be/xL4TWO5CC84> "Body Cavities Explained"
 - <https://youtu.be/WhWEAF5i7iw> "Bone Shapes Explained"
 - <https://youtu.be/DLxYDoN634c> "The Bones"



IDEA/THEME: UNIT 2. Patient Assessment and CPR

ENGAGING TITLE:

ESSENTIAL QUESTION: What does CPR stand for?

INSTRUCTIONAL HOURS: 30:00 Hours

Unit Overview

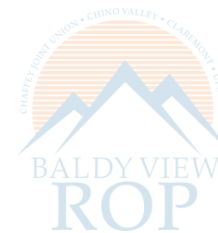
This unit introduces you to basic principles and components of the patient assessment as well as acronyms and tips to assist you in using on-scene findings to identify and manage immediate life threats and injuries within the EMR's scope and practice. This unit also explores what are arguably the two most important lifesaving skills; airway care and rescue breathing and will teach the EMR student how recognize and intervene in the event of cardio-respiratory failure and/ or arrest. Upon completion of this unit students will receive AHA CPR certification for the BLS Provider.

Certificate Competencies

- Describes airway anatomy and physiology.
- Demonstrates pulmonary/ cardio-pulmonary resuscitation as well as skills to adequately manage patients with airway compromise.
- Demonstrates skills needed to perform the initial assessment and to continue the assessment and treatment.
- Demonstrates the method of assessing patients; traumatic injuries and medical complaints.
- Demonstrates the importance of trending, recording changes in patient conditions.

Key Assignments

- Using appropriate medical terminology and given a simulated emergency scenario, demonstrate the ability to properly perform a scene size-up, primary, secondary assessment and reassessment of a medical or trauma patient as needed.
- Obtain American Heart Association (AHA) BLS Provider CPR Certification



Anchor Standards

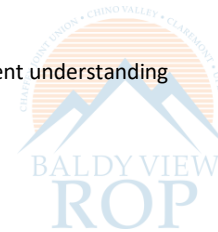
- 5.0 Problem Solving and Critical Thinking. Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Public Services sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.
- 5.1 Identify and ask significant questions that clarify various points of view to solve problems.
 - 5.2 Interpret information and draw conclusions, based on the best analysis, to make informed decisions.
- 11.0 Demonstration and Application. Demonstrate and apply the knowledge and skills contained in the Public Services anchor standards, pathway standards, and performance indicators in classroom, laboratory and workplace settings, and through the Cal-HOSA and SkillsUSA career technical student organizations.
- 11.2 Demonstrate proficiency in a career technical pathway that leads to certification, licensure, and/or continued learning at the postsecondary level.

Pathway Standards

- B.9.0 Demonstrate the immediate basic life support and interim medical care for a sick, injured, or compromised person until advanced medical care is provided or transport is initiated.
- B9.1 Understand and use medical terminology and related knowledge of anatomy, physiology, diseases, diagnoses, pharmacology, therapeutics, and common abbreviations necessary for emergency medical services.
 - B9.2 Know the common acronyms used in fire and emergency services.
 - B9.3 Perform technical skill and equipment use required for emergency response occupations – for example, airway, oxygen, and ventilation procedures; suction; bleeding control; shock management; cardiac arrest management; immobilization techniques; traction; splinting; transport; defibrillation; and wound management.
 - B9.6 Manage an incident scene as the first responder, using emergency response skills appropriate to training and certification.
 - B9.8 Demonstrate the ability to assess the nature and extent of illness or injury to establish and prioritize medical response.

Common Core Standards

- RLST 11-12.10 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process phenomenon, or concept, resolving conflicting information when possible.

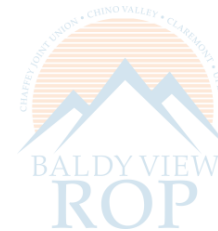


RESOURCES: UNIT 2.**Resources****Chapter 7: Airway Management (Pg. 106)**

- Objectives: #1 (Pg. 108-110), #2 (Pg. 110), #4 (Pg. 111), #5 (Pg. 111-112), #7 (Pg. 112-114), #8 (Pg. 114-117), #10 (Pg. 119) #11 (Pg. 119-125) #13 (Pg. 127-128), #17 (Pg. 132-133), #18 (Pg. 133-134), #19 (Pg. 133-134), #20 (Pg. 134- 135) #22 (Pg. 136)
- Chapter 7 Worksheet Packet
- Skill Sheet 07-01 Clearing the Airway Using Finger Sweeps
- Skill Sheet 07-02 Inserting and Oral Airway
- Skill Sheet 07-03 Inserting a Nasal Airway
- Skill Sheet 07-04 Performing Mouth-to-Mouth Breathing
- Skill Sheet 07-05 Performing Mouth-to-Mask Breathing
- Skill Sheet 07-06 Using a BVM with One Rescuer
- Skill Sheet 07-07 Performing Infant Rescue Breathing
- Skill Sheet 07-08 Managing Airway Obstructions in a Conscious Patient

Chapter 8: Professional Rescuer CPR (Pg. 141)

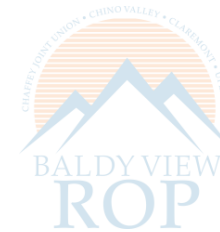
- Objectives: #1 (Pg. 142- 144), #2 (Pg. 144), #4 (Pg. 145), #5 (Pg. 145-146), #6 (Pg. 144-149), #13 (Pg. 156), #14 (Pg. 156-157), #16 (Pg. 159), #17 (Pg. 159-161), #19 (Pg. 162)
- Chapter 8 Worksheet Packet
- Skill Sheet 08-05 Performing One-Rescuer Infant CPR
- Skill Sheet 08-01 Performing Adult Chest Compressions
- Skill Sheet 08-02 Performing One-Rescuer Adult CPR
- Skill Sheet 08-03 Performing Two-Rescuer Adult CPR
- Skill Sheet 08-04 Procedure for Automated External Defibrillation
- Videos: AHA Basic Life Support DVD (4 Hours)



Chapter 9: Patient Assessment (Pg. 75)

- Chapter 9 Worksheet Packet
- Skill Sheet 09-01 Performing a Secondary Assessment

- Websites:
<http://www.convenientlyavailable.com/soapcr/> "Electronic Pt Care Report (ePCR)"
- Videos:
<https://youtu.be/VJQg1ROW5G4> "Pt. Perspective"
<https://youtu.be/bHXvhQQ0hYc> "Taking a Blood Pressure"
<https://youtu.be/PDMgTfjPLFk> "Tips for Taking BP"
<https://youtu.be/t82JaHmy13U> "Be Thorough! Trauma Assessment"



IDEA/THEME: UNIT 3. Illness and Specific Injuries

ENGAGING TITLE:

ESSENTIAL QUESTION: What can you do if sticks and stones break someone's bones?

INSTRUCTIONAL HOURS: 40 Hours

Unit Overview

All EMS emergencies can be categorized in one of two ways: medical or trauma. Such emergencies could include altered mental status, environmental or behavioral emergencies, and injuries to soft tissue, muscle, or bone. This unit is meant to prepare the EMR student to recognize and manage life threats based on assessment findings while awaiting additional emergency response.

Certificate Competencies

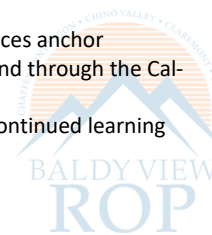
- Treats signs and symptoms of cardiovascular disease
- Treats signs and symptoms of poisoning and overdose.
- Treats heat and cold exposure, emergency medical care of the conditions.
- Treats signs and symptoms of aquatic emergencies, bites and stings.
- Treats behavioral emergencies and is able to restrain combative patients.

Key Assignments

- Using appropriate medical terminology students will demonstrate the ability to recognize and care for a patient experiencing shock as per AAOS Skill Sheet 14-01
- Using appropriate medical terminology and therapeutic techniques, students will demonstrate the ability to appropriately assess and care for a patient with muscle and/or bone injury as per AAOS Skill Sheets 15-01, 15-06, 15-09.
- Demonstrate the ability to appropriately assess and care for a patient experiencing an environmental emergency as per industry specific regulations and National Standards (i.e. CCR Title 22).

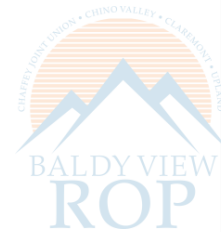
Anchor Standards

- 11.0 Demonstration and Application. Demonstrate and apply the knowledge and skills contained in the Public Services anchor standards, pathway standards, and performance indicators in classroom, laboratory and workplace settings, and through the Cal-HOSA and SkillsUSA career technical student organizations
- 11.2 Demonstrate proficiency in a career technical pathway that leads to certification, licensure, and/or continued learning at the postsecondary level.



Pathway Standards

- B.9.0 Demonstrate the immediate basic life support and interim medical care for a sick, injured, or compromised person until advanced medical care is provided or transport is initiated.
 - B9.1 Understand and use medical terminology and related knowledge of anatomy, physiology, diseases, diagnoses, pharmacology, therapeutics, and common abbreviations necessary for emergency medical services.
 - B9.2 Know the common acronyms used in fire and emergency services.
 - B9.6 Manage an incident scene as the first responder, using emergency response skills appropriate to training and certification.
 - B9.8 Demonstrate the ability to assess the nature and extent of illness or injury to establish and prioritize medical response.



RESOURCES: UNIT 3.**Chapter 14 Bleeding, Shock, and Soft-Tissue Injuries (Pg. 119)**

- Chapter 14 worksheet packet
- Skill Sheet 14-01 Controlling Bleeding With a Tourniquet
- Videos:
 - <https://youtu.be/l2NCinkrSIU> "The Golden Hour"
 - <https://youtu.be/AUwRx2qFRUY> "Stab Wounds"

Chapter 15 Injuries to Muscles and Bones (Pg. 131)

- Chapter 15 Worksheet Packet
- Skill Sheet 15-01 Checking Circulation, Sensation and Movement in an Injured Extremity
- Skill Sheet 15-06 Applying a Traction Splint
- Skill Sheet 15-09 Stabilizing the Cervical Spine and Maintaining an Open Airway
- Videos:
 - <https://youtu.be/crUUr7FnBmI> "No Seat Belts"
 - <https://youtu.be/hi2FEyV2Z2E> "When Physics Meets Biology"

Chapter 10 Medical Emergencies (Pg. 87)

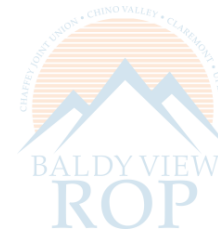
- Chapter 10 Worksheet Packet
- Videos:
 - <https://youtu.be/gLTTCGKo07A> "Cincinnati Prehospital Stroke Scale"

Chapter 11 Poisoning and Substance Abuse (Pg. 97)

- Chapter 11 Worksheet Packet

Chapter 13 Environmental Emergencies (Pg. 113)

- Chapter 13 Worksheet Packet



IDEA/THEME: UNIT 4. Childbirth & Pediatrics

ENGAGING TITLE:

ESSENTIAL QUESTION: "Where do baby's come from?"

INSTRUCTIONAL HOURS: 20 Hours

Unit Overview

Albeit exciting, childbirth can be a dramatic and often stressful event, even under the most ideal circumstances. This unit introduces the EMR student to the basic principles of childbirth and how to effectively assist in the birth process to support both mother and newborn. Additionally, pediatrics emergencies also present with their own specific challenges. This unit is meant to familiarize the EMR student with the key anatomical differences between adults and children and highlights the special considerations taken during treatment of such patients.

Certificate Competencies

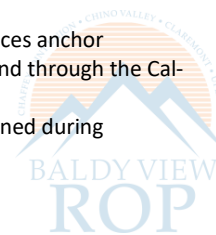
- Treats anatomical and physiological changes that occur during pregnancy.
- Demonstrates normal and abnormal deliveries, signs and symptoms of common gynecological emergencies, and neonatal resuscitations.
- Recognizes and describes developmental and anatomical differences in infants and children.
- Recognizes and describes dealing with an ill or injured infant or child patient.

Key Assignments

- Properly don sterile gloves using aseptic techniques as per AAOS Skill Sheet 0-01.
- Given a simulated patient, demonstrate the proper techniques for assisting with a live childbirth and state considerations in the event of unplanned or abnormal delivery as per AAOS Skill Sheet 16-02
- Given a simulated patient, demonstrate proper sizing and insertion of an oropharyngeal airway (OPA) into a pediatric patient given special considerations of anatomical difference as per AAOS Skill Sheet 17-01

Anchor Standards

- 11.0 Demonstration and Application. Demonstrate and apply the knowledge and skills contained in the Public Services anchor standards, pathway standards, and performance indicators in classroom, laboratory and workplace settings, and through the Cal-HOSA and SkillsUSA career technical student organizations
- 11.1 Utilize work-based/workplace learning experiences to demonstrate and expand upon knowledge and skills gained during classroom instruction and laboratory practices specific to the Public Services sector program of study



Pathway Standards

- B.9.0 Demonstrate the immediate basic life support and interim medical care for a sick, injured, or compromised person until advanced medical care is provided or transport is initiated.
- B9.6 Manage an incident scene as the first responder, using emergency response skills appropriate to training and certification.

RESOURCES: UNIT 4.

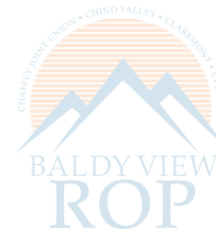
Resources

Chapter 16 Childbirth (Pg. 147)

- Chapter 16 Worksheet Packet
- Skill Sheet 16-01 Putting on Sterile Gloves
- Skill Sheet 16-02 Resuscitating a Newborn

Chapter 17 Pediatric Emergencies (Pg. 155)

- Chapter 17 Worksheet Packet
- Skill Sheet 17-01 Inserting an Oral Airway in a Child



IDEA/THEME: UNIT 5. Emergency Medical Services (EMS) Operations

ENGAGING TITLE:

ESSENTIAL QUESTION: Green, Yellow, Red or Black?

INSTRUCTIONAL HOURS: 30 Hours

Unit Overview

This unit covers hazardous materials, mass casualty, and terrorist incidents and introduces the EMR student to the Incident Command System (ICS) and National Incident Management System (NIMS). It also discusses operational roles and responsibilities of the EMS system and that of the Emergency Medical Responder in multi-agency coordinated events to ensure the safety of personnel, patients, and the public. The focus of this unit is to prepare the EMR with knowledge of basic triage, the ability to use the START triage system and to identify signs of hazardous materials incidents to prevent injury to themselves and others. This unit offers federally recognized certification in ICS-100 FEMA's Emergency Management Institute.

Certificate Competencies

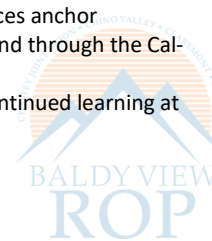
- Describes knowledge needed to function in the pre-hospital environment.
- Explains the phases of an ambulance call, emergency vehicle operations, and transferring patients.
- Describes Rescue Operations.

Key Assignments

- Demonstrate the ability to identify and manage common hazardous materials at a simulated emergency response utilizing the Emergency Response Guidebook.
- Obtain certification via FEMA's Emergency Management Institute in ICS-100 (ICS-200 and 700 optional).
- Create an Incident Action Plan for a school given a simulated emergency scenario.

Anchor Standards

- 11.0 Demonstration and Application Demonstrate and apply the knowledge and skills contained in the Public Services anchor standards, pathway standards, and performance indicators in classroom, laboratory and workplace settings, and through the Cal-HOSA and SkillsUSA career technical student organizations.
- 11.2 Demonstrate proficiency in a career technical pathway that leads to certification, licensure, and/or continued learning at the postsecondary level.



Pathway Standards

- B2.0 Understand the process by which emergency management organizations and emergency managers exert command and control over an emergency response and recovery operation.
- B2.1 Describe the mechanisms by which emergency management stakeholder agencies and resources are coordinated for mutual aid.
 - B2.2 Understand the importance of an organized Command and Control System to provide for interoperability, efficiency, and effectiveness.
 - B2.3 Understand the core set of basic concepts, principles, terminology, and technologies of emergency response management.
 - B2.4 Recognize multiagency coordination; unified command, training, identification and management of resources; qualification and certification; and the collection, tracking, evaluation, and dissemination of information.
 - B2.5 Describe the principles and responsibilities of the Incident Command System (ICS) and the National Incident Management System (NIMS).

Commented [CL3]: All covered in obtaining FEMA ICS-100, ICS-700 Certification

RESOURCES: UNIT 5.

Resources

Chapter 19 Transport Operations (Pg. 173)

- Chapter 19 Worksheet Packet

Chapter 21 Incident Management (Pg. 185)

- Chapter 21 Worksheet Packet
- Websites:
 - <https://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Hazmat/ERG2016.pdf> "Emergency Response Guidebook"
 - <https://training.fema.gov/is/courseoverview.aspx?code=IS-100.b> "FEMA ICS Online Training"
- Videos:
 - <https://www.youtube.com/watch?v=R2zuvOfVc8Y&t=1951s> "After Aurora"
 - <https://youtu.be/BNI5EFMCwZ8> "ICS Scenario"
 - https://youtu.be/bZ0rRPmgW_g "ICS Structure"

