#### **EMT Curriculum Map**

#### Unit 1: Introduction to Emergency Medical Services

#### **Overarching Question/Theme:**

How has the history of EMS shaped modern practices, and what role does provider well-being, safe patient handling, medical ethics, anatomy/physiology, and developmental changes play in delivering effective emergency care, including the accurate measurement of vital signs?

# Standard/Knowledge **Skills/Dispositions** Explain the roles of the following: EMDs, EMRs, EMTs, AEMTs, Paramedics, Medical Directors. • Recognize the importance of scene risks and management for the safety of the EMT.

- Describe the appropriate pt/scenario for the use of the following moves: clothes drag, incline drag, shoulder drag, foot drag, firefighter's drag, blanket drag, one/two-rescuer assist, cradle carry, pack strap carry, extremity carry, and draw sheet method.
- Explain duty to act, scope of practice, standard of care, negligence, consent, expressed consent, implied consent, involuntary consent, informed consent, loco parentis, abandonment.
- Explain the concept of body topography, medical terminology, anatomy & physiology, and acronyms widely accepted by healthcare providers
- Explain the developmental changes that occur for each stage of the life span to include physiological, psychosocial, and vital sign changes.
- Name the 6 vital signs, how to conduct them, and the parameters to be measured/observed with each.

- Competency in vital signs:
  - Pulse
  - Blood Pressure (auscultated)
  - Blood Pressure (palpated)
  - Pulse Oximetry
  - Capnography
  - Pupil Reactivity
- Lifting & Moving:
  - Body mechanics
  - Draw sheet method
  - Fireman's carry
  - Stretcher operations
  - Stair chair ops
  - Emergency Drags
- Scene assessment of safety & hazardous conditions
- Proper hand washing
- Glove removal
- Usage of medical terminology

Resources	Assessments
Textbooks Slide decks Audio/video aids Stretcher Stair chair Mega-movers	Chapter Quizzes:  Chapter 1: Introduction to Emergency Medical Services Chapter 2: Well-being of the EMT Chapter 3: Lifting & Moving Patients Chapter 4: Medical, Legal, and Ethical Issues

Guest speakers from various first response agencies (police, fire, ems)

- Chapter 5: Medical Terminology
- Chapter 6: Anatomy & Physiology
- Chapter 8: Lifespan Development
- Chapter 13: Vital Signs & Monitoring Devices

Unit 1 Exam

## **MA Framework Alignment**

- MA12.2.PS.1: Explain human trafficking and sexual exploitation and identify recruitment tactics used to exploit vulnerabilities and recruit youth. [HE]
- MA12.1.HR.5: Discuss different forms of abuse in relationships including emotional abuse, sexual abuse, domestic violence, dating violence, gender-based violence, sex trafficking and exploitation, and available supports and resources for getting help if in an abusive or exploitative relationship. [HPE; SE]
- MA12.2.MH.2: Apply coping and stress management techniques to manage a variety of stressors (i.e., school, personal life, relationships) and create a long-term plan for stress management. [HPE; SE]
- MA12.2.MH.3: Apply strategies, including developing protective factors and personal assets, to support positive mental and emotional well-being. [HPE; SE]
- MA12.3.MH.1: Describe both positive (e.g., developmental assets, protective factors, resilience, supportive adult relationships) and negative factors (e.g., trauma, adversity, adverse childhood experiences) that can impact mental and emotional health and well-being. [HE; SE]

#### Unit 2: Patient Assessment

#### Overarching Question/Theme:

• How does each part of the patient assessment sequence influence the providers decisions when working with various types of patients?

#### Standard/Knowledge

- Identify the standard danger zone with no apparent hazards and what it extends to when hazards such as oil spill or fire are present.
- Sequentially list the parts of the Primary Assessment.
- Explain the importance of taking a patient history and how the SAMPLE and OPQRST mnemonics are used.
- Contrast the secondary assessment, differentiating the trauma assessments (focused and rapid head-to-toe) vs medical (modified and rapid head-to-toe).
- Describe the narrative of the PCR and what elements it may contain.
- Recognize the implications of the following conditions: autism, cerebral palsy, cognitive disabilities, hearing impairment, renal failure, neuromuscular disorders, stroke, spinal cord injury, & vision impairment.

### **Skills/Dispositions**

- Assessing medical and trauma patients using the assessment sequence of:
  - Scene size-up
  - Primary Assessment
  - Secondary Assessment
  - Reassessment
- Communication of patients who are typical and atypical by the following methods:
  - Oral
  - Written
  - Physical (body language)
- Documentation of case study (patient scenarios)

#### Resources Assessments

Textbooks

Slide decks

Audio/video aids

State Skills Assessment Checklist

Blood Pressure Cuffs + Stethoscope

Pen Light

Glucometers

#### Chapter Quizzes:

- Chapter 11: Scene Size-up
- Chapter 12: Primary Assessment
- Chapter 14: Principles of Assessment
- Chapter 15: Secondary Assessment
- Chapter 16: Reassessment
- Chapter 17: Communication & Documentation
- Chapter 37: Patients with Special Challenges

Documentation Competency:
<ul> <li>Patient Care Report 1</li> </ul>
<ul> <li>Patient Care Report 2</li> </ul>
<ul> <li>Patient Care Report 3</li> </ul>
Unit 2 Exam

# **MA Framework Alignment**

MA12.3.MH.9: Demonstrate a variety of culturally responsive strategies for collaborating with peers, adults, and others in the community. [HPE; SE]

MA12.3.MH.12:Communicate non-judgmentally when there is a concern about one's own or someone else's mental well-being or where someone is considering harming or killing themselves. [HE; SE]

#### Unit 3: Cardiovascular and Respiratory Emergencies

#### Overarching Question/Theme:

• How do cardiac and respiratory emergencies impact patients and why are timely interventions, including effective CPR, critical to improving survival rates in these situations?

#### Standard/Knowledge

- Identify the role of chemoreceptors for respiratory compensation and what factor(s) regulates respiratory drive.
- Describe the indications, flow rates, and oxygen concentrations of the bag valve mask,
   Non-rebreather, and Nasal Cannula and administer oxygen by properly setting up equipment for patient needs
- Identify the frequency of ventilations for adults, children, and infants.
- Describe the following respiratory diseases identifying the physiology, cause and prehospital treatment: COPD (Chronic bronchitis, emphysema), pulmonary edema, pneumonia, epiglottis, croup, pneumothorax, pulmonary embolism, pertussis, tuberculosis (TB), cystic fibrosis (CF).
- Describe the following types of cardiac compromise: CAD, Angina Pectoris, Acute Myocardial Infarction (AMI), aneurysm, dysrhythmia, CHF, thrombus, embolism, and dysrhythmias to include VTach, VFib, PEA, and Asystole
- Describe the following elements of high-quality CPR: hand placement, compression depth and rate, compression/ventilation ratios.

#### **Skills/Dispositions**

- Rapid recognition of presence or absence Airway, Breathing, & Circulation (ABC's)
- Maintenance of the cardiac chain of survival
- High quality Cardiopulmonary Resuscitation (CPR):
  - Proper compressions by rate and depth
  - Ventilation by rate and depth
    - properly sized adjuncts
    - with oxygen
  - Rapid defibrillation
- Teamwork & Communication
  - o "Pit-crew" CPR
  - Minimally interrupted compressions
  - Smooth transitions between providers and moving patients
- Advanced Life Support assistance:
  - ECG electrode placement
  - Assistance in advanced airway placement.
  - Assistance in vascular access.
  - Assistance in mechanical compression deployment.

Resources	Assessments
Textbooks Slide decks Audio/video aids State Skills Assessment Checklist	Chapter Quizzes

Healthcare Provider CPR checklist CPR manikins Airway Management Bags AED Trainers Anti-Choking Heimlich Trainers Cardiac monitor + Electrodes Suction Devices **Artificial Ventilation** 

- Chapter 19: Respiratory Emergencies
- Chapter 20: Cardiac Emergencies
- Chapter 21: Resuscitation

#### Certifications:

- Healthcare Provider CPR Certification Exam
- 51A Mandated Reporter Certification
- IS100 Certification
- IS700 Certification

Unit 3 Exam

# **MA Framework Alignment**

MA12.2.PS.6: Demonstrate proficiency in Cardiopulmonary Resuscitation (CPR) and the use of Automated External Defibrillators (AEDs). [HPE]

#### Unit 4: Medical Emergencies

#### **Overarching Question/Theme:**

• Why is it important to be able to identify signs and symptoms of various medical emergencies

# Standard/Knowledge

- Recognize the drugs commonly carried on ambulances and the six rights of medication required prior to administration
- Contrast hyperglycemia and hypoglycemia, describing the assessment and care of each.
- Identify warning signs of allergic reaction including anaphylaxis and what interventions are required for each patient based on their symptomology.
- Identify the signs/symptoms, complications, and special considerations of: Chickenpox, Measles, Mumps, Hepatitis, HIV/AIDS, Influenza, Croup, Pertussis, Pneumonia, Tuberculosis, Meningitis, STIs, and Tick related disease.
- Recognize the progression from local infection to septic shock and the pathophysiology of sepsis.
- Describe the following conditions by cause, signs, and symptoms: appendicitis, peritonitis,
   Cholecystitis/gallstones, pancreatitis, abdominal aortic aneurysm (AAA), hernia, hepatitis, GI bleeding, ulcers, and renal colic (kidney stones).
- Explain how the brain uses neurotransmitters and how some medications use these neurotransmitters to manage mental health disorders and identification of signs and symptoms seen in behavioral emergencies.
- Explain why coagulopathies (either too slow or too fast) can have negative effects on pts
- Contrast the following: Acute Renal Failure (ARF), Chronic Renal Failure (CRF), End Stage Renal Disease (ESRD).

### **Skills/Dispositions**

- Rapid identification of symptomology and interventions for:
  - o Diabetes
  - Altered Mental Status
  - Allergic Reactions
  - Infectious Disease/Sepsis
  - Poisoning/Overdose
  - Abdominal Emergencies
  - Behavioral/Psychological
  - Hematological/Renal
  - Environmental
  - OBGYN
- Appropriate deployment of medications:
  - Aspirin
  - Narcan
  - Diphenhydramine
  - > Pain Relief
  - o Epi
  - Oxygen
  - Activated Charcoal
  - Glucose
  - Albuterol
  - Nitroglycerin
- Sharps handling

- Explain the relationship between temperature, wind, and humidity increases the likelihood of environmental injury.
- Explain complications of pregnancy and childbirth.

Resources	Assessments
Textbooks Slide decks Audio/video aids State Skills Assessment Checklist Epi-Pen Trainers Check n Inject Trainers Nebulizer Trainer Narcan Trainers Triangular Bandages	<ul> <li>Chapter Quiz</li> <li>Chapter 18: General Pharmacology</li> <li>Chapter 22: Diabetic Emergencies and Altered Mental Status</li> <li>Chapter 23: Allergic Reactions</li> <li>Chapter 24: Infectious Disease &amp; Sepsis</li> <li>Chapter 25: Poisoning &amp; Overdose Emergencies</li> <li>Chapter 26: Abdominal Emergencies</li> <li>Chapter 27: Behavioral &amp; Psychiatric Emergencies &amp; Suicide</li> <li>Chapter 28: Hematological &amp; Renal Emergencies</li> <li>Chapter 35: Environmental Emergencies</li> <li>Chapter 36: OBGYN Emergencies</li> </ul>
	Pharmacology Quizzes

# **MA Framework Alignment**

MA12.1.SH.3: Analyze factors that contribute to behaviors that increase the risk of pregnancy, HIV, and other STIs. [HE]

- MA12.1.SU.3: Analyze the potential short- and long-term impacts (including addiction) of legal (e.g., prescription drugs prescribed to you, over-the-counter drugs, and [at a certain age] nicotine, electronic vapor products, alcohol, and marijuana) and illegal drugs (e.g., prescription drugs not prescribed to you, cocaine) on multiple dimensions of health (e.g., physical, mental, emotional, social, intellectual) and on other health risk behaviors (e.g., sexual activity, impaired driving). [HPE]
- MA12.2.MH.1: Apply strategies to appropriately respond using different levels of emotions in routine interactions. [HPE; SE]

#### Unit 5: Trauma Emergencies

#### Overarching Question/Theme:

 How would you handle patients who have single or multi-system trauma or incidents with multiple patients?

#### Standard/Knowledge

- Differentiate the following 4 major types of shock, their subcategories, common/unique assessment concerns, and treatment.
  - Hypovolemic (hemorrhagic, non-hemorrhagic)
  - Cardiogenic
  - Distributive (anaphylactic, neurogenic, septic, psychogenic)
  - Obstructive (tension pneumothorax, cardiac tamponade, PE)
- Identify the following types of open wounds and discuss their causes, presentation and care: Abrasion, Laceration, Punctures, Avulsion, Amputation, Impaled objects, Open crash injury.
- Describe the following chest injuries, including assessment and interventions for each: flail chest, paradoxical motion, Sucking chest wound, tension pneumothorax, hemothorax, hemopneumothorax, traumatic asphyxia, Commotio cordis, Cardiac tamponade, aortic injury (to include aneurysm).
- Identify the indications and procedures for splinting wrists, forearms, elbows, upper arms, shoulder girdles, femurs, knees, and lower legs, and pelvic fractures.
- Explain the care provided for pts with potential spine trauma by demonstrating proper backboarding, scoop stretcher, KED, and cervical collar application.
- Describe the process for identifying HazMat to include: using binoculars, looking at placards/labels/manifests/SDS, and utilizing an Emergency Response Guidebook (ERG).

## **Skills/Dispositions**

- Rapid and accurate head-to-toe assessment and proper interventions for
  - Wound management
  - Bleeding Management
    - Direct Pressure
      - Tourniquets
      - Wound Packing
  - Shock
    - Cardiogenic
    - Obstructive
    - Distributive
    - Hypovolemic
  - Sprains/Strains/Fractures
    - Stabilization
  - Trauma to the head/neck/spine:
    - Stabilization
    - Cervical collar application
    - backboard
- Communication & Teamwork for incidents of multiple casualty situations utilizing triage techniques

<ul> <li>Describe primary and secondary triage procedures to include: the four groups of patient priority, START Triage/RPM model, and the SALT model.</li> </ul>	
Resources	Assessments
Textbooks Slide decks Audio/video aids State Skills Assessment Checklist Stop The Bleed Manikins Tourniquets Gauze and Wound Care Backboards Kendrick Extrication Devices Splints	Chapter Quiz
	Unit 5 Exam
MA Framework Alignment NA	