2002

State of Ohio

INTERMEDIATE

CURRICULUM

SECTION 1 – Preparatory

1-1

Roles and Responsibilities/Foundation of EMT-I
Medical/Legal Considerations
EMS Systems/Critical Incident Stress Management

1-2

Basic Anatomy & Physiology
- Fluids/Electrolytes
- Cardiac Conduction
- Nervous System
- Overview of Human Systems

1-3

Basic Principles of Pharmacology
- Drug and Drug Products/Preparation
- Administration Techniques
- Routes of Administration/Rates of Absorption

1-4

Venous Circulation Access/Medication Administration
- Sublingual
- Subcutaneous
- IV/IO
- IM
- Inhalation
- Oral

Blood Draw

Medications

Nitroglycerin	Bronchodilators
Dextrose 50% in Water	naloxone
Aspirin	morphine sulfate
Epinephrine	Glucagon
diphenhydramine	nalbuphine
diazepam / lorazepam	meperidine
Nitrous Oxide	ketoraloc, or other analgesics for relief of pain

SECTION 2 Airway Management and Ventilation

2-1
Airway Patency
Airway Management
Oxygen Delivery Devices
Endotracheal Intubation / Dual Lumen Airway Device (DLAD) Pharyngeal-Trachael Luman (PTL) / Combitube / Larengeal Mask Airway (LMA)

SECTION 3 Patient Assessment

3-1
Patient Assessment
Medical History Taking

3-2
Physical Examination Findings

3-3
Clinical Decision Making

3-4
Communication

3-5
Documentation

SECTION 4 Trauma

4-1
Mechanism of Injury/Kinematics

4-2
Hemorrhage
Shock
Management and Treatment

4-3
Burns
Management and Treatment

4-4
Thoracoabdominal Trauma
Management and Treatment

4-5
Head Injuries
Management and Treatment

4-6
Management of Trauma Conditions
Practical Application

SECTION 5 Medical Emergencies

5-1
Respiratory/Pulmonary Disease
Management and Treatment

5-2
Cardiovascular/Strip Identification
Management and Treatment

5-3
Diabetic Emergencies
Management and Treatment

5-4
Allergic Reaction/Anaphylaxis
Management and Treatment

5-5
Toxicology/Overdose
Management and Treatment

5-6
Neurological Emergencies
Management and Treatment

5-7
Non-traumatic Abdominal Disorders
Management and Treatment

5-8
Environmental Emergencies
- Heat
- Cold
- Near Drowning

Management and Treatment

5-9
Behavioral Emergencies
Management and Treatment

5-10
Gynecological Emergencies
Management and Treatment

SECTION 6 Special Considerations

6-1
Pregnancy
Normal/Abnormal Delivery
Trauma
Management and Treatment

6-2
Neonatal Resuscitation
APGAR
Care of the Newborn
Management and Treatment

6-3
Pediatric Considerations
Developmental Stages
Respiratory Processes
Cardiac Processes
Child Abuse/Neglect
Trauma
Management and Treatment

6-4
Geriatrics
Age-Related Changes
Trauma
Communications
Management and Treatment

Curriculum Breakdown

During the training program, the student must demonstrate, in a clinical setting, competencies in the following areas:

Skills	**Number**
IV's	5-10
Intubations	3-5 (may be obtain in the Lab or clinical)
Subcutaneous Injection	1-3
Intramuscular Injection	3
Patient Assessments	20 (to be performed on all age groups, including Medical and Trauma)
IV Medications/Saline	1 each
Intraosseous Infusion	2 (may be done on an IO manikin)
Manual Defibrillation	1 (may be done in the Lab on a simulated Patient)
Bronchodilators	5 (initiated in the clinical setting only)

SECTIONS

Section 1 – Preparatory

Section 2 – Airway/Ventilation

Section 3 – Patient Assessment

Section 4 – Trauma

Section 5 – Medical Emergencies

Section 6 – Special Considerations

Total Hours To Complete	***130***

Ohio Intermediate Curriculum
Objectives

1-1 At the completion of this unit, the EMT-Intermediate student will:

- **Identify his or her roles and responsibilities within and EMS system, and how these roles and responsibilities differ from other levels of providers.**
- **Identify the role of medical direction in the out-of-hospital environment.**
- **Identify the legal issues that impact decisions made in the out-of-hospital environment.**
- **Recognize the role that ethics plays in decision-making in the out-of-hospital environment.**

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

1-1.1 Review the following terms:
   a. EMS Systems
   b. CISM

1-1.2 Review the common physiological and psychological effects of stress.

1-1.3 Review the components of Critical Incident Stress Management.

1-1.4 Review the importance of universal precautions and body substance isolation practices.

1-1.5 Identify and explain the importance of laws pertinent to the EMT-Intermediate.

1-1.6 List the specific problems or conditions encountered while providing care that and EMT-Intermediate is required to report, and identify in each instance to whom the report is to be made.

1-1.7 Review and define the following terms:
   a. Advanced directives
   b. Confidentiality
   c. Consent
   d. Minor
   e. Negligence
   f. Standard of care
   g. Assault
   h. Battery
   i. DNRCC/DNRCCA
   j. Scope of Practice

1-1.8 Review the steps to take if a patient refuses care.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

1-1.9 Demonstrate the proper procedure to take for personal protection from disease.

1-1.10 Demonstrate a working knowledge of the legal terms specific to local protocols.

1-2 At the completion of this unit, the EMT-Intermediate student will understand basic anatomy and physiology and how it relates to the foundations of medicine.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

1-2.1 Define anatomy, physiology and pathophysiology.
1-2.2 Define homeostasis.
1-2.3 Identify the anatomical planes.
1-2.4 Name the divisions of the nervous system and state the function of each.
1-2.5 Describe the role of polarization, depolarization, repolarization in nerve impulse transmission.
1-2.6 Identify the components of the central nervous system, its divisions and define their functions.
1-2.7 State the function of the hormones of the pancreas.
1-2.8 State the functions of epinephrine and norepinephrine and explain their relationship to the sympathetic division of the autonomic nervous system.
1-2.9 Describe the characteristics of blood and its composition.
1-2.10 State the importance of blood clotting and explain the function of the red blood cells, white blood cells and platelets.
1-2.11 Describe the cardiac cycle.
1-2.12 Name the parts of the cardiac conduction pathway.
1-2.13 Explain the relationship between stroke volume, heart rate, and cardiac output.
1-2.14 Explain how the nervous system regulates heart rate and force of contraction.
1-2.15 Describe the structure and function of the arteries, veins and capillaries and relate their structure to function.
1-2.16 Describe the pathway and purpose of pulmonary circulation.
1-2.17 Describe the pathway and purpose of systemic circulation.
1-2.18 Define blood pressure and explain the factors that maintain and regulate blood pressure.
1-2.19 Describe the structure and functions of the components of the respiratory system.
1-2.20 Describe normal inhalation and exhalation.
1-2.21 Differentiate between ventilation and respiration.
1-2.22 Describe how oxygen and carbon dioxide are transported in the blood.
1-2.23 Explain the nervous and chemical mechanisms that regulate respiration.
1-2.24 Describe the water compartments and the name for the fluid in each.
1-2.25 Describe the three buffer systems in body fluids.
1-2.26 Explain why the respiratory system has an effect on pH, and describe the respiratory compensating mechanisms.
1-2.27 Explain the renal mechanisms for pH regulation of extracellular fluid.

1-3 **At the completion of this unit, the EMT-Intermediate student will be able to understand the basic principles of pharmacology.**

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

1-3.1 Review the specific anatomy and physiology pertinent to pharmacology.
1-3.2 Discuss the standardization of the drugs.
1-3.3 Differentiate among the chemical, generic (nonproprietary), and trade (proprietary) names of a drug.
1-3.4 List the four main sources of drug products.
1-3.5 Describe how drugs are classified.
1-3.6 List the authoritative sources for drug information.
1-3.7 Discuss the EMT-Intermediate's responsibilities and scope of management pertinent to the administration of medications.
1-3.8 List and differentiate routes of drug administration.
1-3.9 Differentiate between enteral and parenteral routes of drug administration.
1-3.10 Describe the mechanism of drug action.
1-3.11 List and describe the classification, pharmacological actions, indications, precautions, therapeutic dosage and side effects of the following medications , including those necessary for the relief of pain:

a. Oxygen
b. Nitroglycerin
c. Dextrose 50% in Water
d. Aspirin
e. Epinephrine
f. diphenhydramine
g. diazepam / lorazepam
h. Bronchodilators
i. naloxone
j. Glucagon
k. Nitrous Oxide
l. nalbuphine
m. morphine sulfate
n. ketoraloc
o. meperidine
p. Any other analgesics approved by regional and/or local protocol

1-4 At the completion of this unit, the EMT-Intermediate student will be able to safely and precisely access the venous circulation and administer medications.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

1-4.1 Review mathematical principles.
1-4.2 Review mathematical equivalents.
1-4.3 Discuss formulas as a basis for performing drug calculations.
1-4.4 Calculate oral and parenteral drug dosages for all emergency medications administered to adults, infants and children.
1-4.5 Discuss legal aspects affecting medication administration.
1-4.6 Discuss the "six rights" of drug administration and correlate these with the principles of medication administration.
1-4.7 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of intravenous and intraosseous needle placement and infusion.
1-4.8 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of administering medications by the inhalation route.
1-4.9 Describe the equipment needed and general principles of administering oral and rectal medications.
1-4.10 Differentiate among the different parenteral routes of medication administration.
1-4.11 Describe the equipment needed, techniques utilized, complications, and general principles for the preparation and administration of parenteral medications.
1-4.12 Differentiate among the different percutaneous routes of medication administration.
1-4.13 Describe the purpose, equipment needed, techniques utilized, complications and general principles of obtaining a blood sample.
1-4.14 Describe disposal of contaminated items and sharps.
1-4.15 Integrate pathophysiological principles of medication administration with patient management.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

1-4.16 Use universal precautions and body substance isolation (BSI) procedures during medication administration.
1-4.17 Demonstrate intravenous and intraosseous needle placement and infusion.
1-4.18 Demonstrate aseptic technique during medication administration.
1-4.19 Demonstrate administration of medications by the inhalation route.
1-4.20 Demonstrate administration of medications by the oral route.
1-4.21 Demonstrate preparation and administration of parenteral medications.
1-4.22 Demonstrate preparation and techniques for obtaining a blood samples
1-4.23 Perfect disposal of contaminated items and sharps.

2-1 At the completion of this unit, the EMT-Intermediate student will be able to establish and/or maintain a patent airway, oxygenate, and ventilate a patient.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

2-1.1 Review the primary objective of airway maintenance.
2-1.2 Review normal tidal volumes for the adult, child and infant.
2-1.3 Define atelectasis.
2-1.4 Define FiO_2.
2-1.5 Explain the relationship between pulmonary circulation and respiration.
2-1.6 List factors which cause decreased oxygen concentrations in the blood.
2-1.7 List the factors which increase and decrease carbon dioxide production in the body.
2-1.8 Describe the measurement of oxygen in the blood.
2-1.9 Describe the measurement of carbon dioxide in the blood.
2-1.10 Describe the principles of diffusion and osmosis as they relate to oxygen and carbon dioxide levels in the blood.
2-1.11 List the concentration of gases which comprise atmospheric air.
2-1.12 List the factors which affect respiratory rate and depth.
2-1.13 Review the voluntary and involuntary regulation of respiration.
2-1.14 Review causes of upper airway obstruction.
2-1.15 Review normal respiratory rates for the adult, child and infant.
2-1.16 Describe causes of respiratory distress.
2-1.17 Define and differentiate between hypoxia and hypoxemia.
2-1.18 Define pulsus paradoxus.
2-1.19 Review the modified forms of respiration.
2-1.20 Review gag reflex.
2-1.21 Define, identify and describe a tracheostomy, stoma, and tracheostomy tube.
2-1.22 Explain the risk of infection to EMS providers associated with ventilation.
2-1.23 Review the indications, contraindications, advantages, disadvantages, complications and technique for ventilating a patient by:
    a. Mouth-to-nose
    b. Mouth-to-mask
    c. Mouth-to-stoma
    d. Two-person BVM
    e. Three-person BVM
    f. BVM-to-stoma
2-1.24 Review and define the Sellick (cricoid pressure) maneuver.
2-1.25 Compare the ventilation techniques used for an adult patient to those used for pediatric patients.
2-1.26 Review how to ventilate a patient with a stoma, including mouth-to-stoma and BVM-to-stoma ventilation.
2-1.27 Review special considerations of suctioning the upper airway.
2-1.28 Review the technique of tracheobronchial suctioning in the intubated patient.
2-1.29 Review gastric distention.
2-1.30 Review manual airway maneuvers.

2-1.31 Review the indications, contraindications, advantages, disadvantages, complications, and technique for inserting an oropharyngeal and nasopharyngeal airway.
2-1.32 Review the indications, contraindications, advantages, disadvantages and complications of endotracheal intubation, DLAD including the PTL, Combitube , or LMA.
2-1.33 Review the methods of assessment for confirming correct placement of an endotracheal tube, DLAD including the PTL, Combitube, or LMA.
2-1.34 Review methods for securing an endotracheal tube.
2-1.35 Review methods of endotracheal intubation in the pediatric patient.
2-1.36 Review the special considerations in airway management and ventilation for patients with facial injuries.
2-1.37 Review the special considerations in airway management and ventilation for the pediatric patient.

PSYCHOMOTOR OBJECTIVES
At the completion of this unit, the EMT-Intermediate student will be able to:

2-1.38 Perform body substance isolation (BSI) procedures during basic airway management, advanced airway management and ventilation.
2-1.39 Perform pulse oximetry.
2-1.40 Perform oxygen delivery from a cylinder and regulator with an oxygen delivery device.
2-1.41 Deliver supplemental oxygen to a breathing patient using the following devices:
    a. nasal cannula
    b. simple face mask
    c. non-rebreather mask
    d. venturi mask
    e. bag-valve-mask
2-1.42 Perform medication administration with an in-line small-volume nebulizer.
2-1.43 Demonstrate ventilating a patient by the following techniques:
    a. Mouth-to-nose
    b. Mouth-to-mask
    c. Two-person BVM
    d. Three-person BVM
    e. Mouth-to-stoma
    f. BVM-to-stoma ventilation
2-1.44 Perform the Sellick maneuver (cricoid pressure).
2-1.45 Ventilate a pediatric patient using the one and two person techniques.
2-1.46 Intubate the trachea by direct orotracheal intubation.
2-1.47 Intubate a patient using an alternative airway device, including the DLAD, PTL, Combitube, or LMA.
2-1.48 Perform the technique of trachealbronchial suctioning in the intubated patient using sterile technique.
2-1.49 Perform assessment to confirm correct placement of the endotracheal tube and any alternative airway device.
2-1.50 Adequately secure an endotracheal tube and the alternative airway devices including the DLAD, PTL, Combitube, or LMA.
2-1.51 Perform endotracheal intubation in the pediatric patient.
2-1.52 Perform replacement of a tracheostomy tube through a stoma

3-1 At the completion of this unit, the EMT-Intermediate student will be able to use the appropriate techniques to obtain a medical history from a patient.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

3-1.1 Describe the factors that influence the EMT-Intermediate's ability to collect medical history.
3-1.2 Describe the techniques of history taking.
3-1.3 Discuss the importance of using open and closed ended questions.
3-1.4 Describe the use of facilitation, reflection, clarification, empathetic responses, confrontation and interpretation.
3-1.5 Differentiate between facilitation, reflection, clarification, sympathetic responses, confrontation, and interpretation.
3-1.6 Describe how to obtain a medical history.
3-1.7 List and describe strategies to overcome situations that represent special challenges in obtaining a medical history.

3-2 At the completion of this unit, the EMT-Intermediate student will be able to explain the significance of physical exam findings commonly found in emergency situations.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

3-2.1 Review and describe the terms inspection, palpation, percussion and auscultation.
3-2.2 Review the procedure for taking and significance of vital signs (pulse, respiration, blood pressure, skin vitals and pulse oximetry)
3-2.3 Review the evaluation of mental status.
3-2.4 Evaluate the importance of a general impression.
3-2.5 Review the importance of abnormal findings of the assessment of the skin.
3-2.6 Review normal and abnormal assessment findings of the neck and cervical spine.
3-2.7 Differentiate the characteristics of breath sounds.
3-2.8 Differentiate normal and abnormal assessment findings of the chest examination.
3-2.9 Differentiate normal and abnormal assessment findings of the head, eyes, ears, nose and throat.
3-2.10 Review the examination of the arterial pulse including rate and rhythm.
3-2.11 Review normal and abnormal findings of the arterial pulse.
3-2.12 Distinguish normal and abnormal examination findings of jugular venous pressure and pulsations.
3-2.13 Differentiate the characteristics of normal and abnormal findings associated with the auscultation of the heart.
3-2.14 Review normal and abnormal assessment findings of the abdomen.
3-2.15 Review normal and abnormal assessment findings of the extremities.
3-2.16 Review normal and abnormal assessment findings of the peripheral vascular system
3-2.17 Review normal and abnormal assessment findings of the nervous system.
3-2.18 Review the considerations of examination of an infant or child.
3-2.19 Describe the general guidelines of recording examination information.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

3-2.20 Perform a detailed physical examination on a simulated patient.

3-3 At the completion of this unit, the EMT-Intermediate student will be able to apply a process of decision making to use the assessment findings to help form a field impression.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

3-3.1 Differentiate between critical life-threatening, potentially life-threatening, and non life-threatening patient presentations.

3-3.2 Define the components, stages and sequences of the critical thinking process for EMT-Intermediates.

3-3.3 Apply the fundamental elements of critical thinking for EMT-Intermediates.

3-3.4 Describe the effects of the "fight or flight" response and the positive and negative effects on an EMT-Intermediate's decision making.

3-3.5 Develop strategies for effective thinking under pressure.

3-3.6 Summarize the "six R's" of putting it all together: Read the patient, Read the scene, React, Reevaluate, Revise the management plan, Review performance.

3-4 At the completion of the unit, the EMT-Intermediate student will be able to follow an accepted format for the dissemination of patient information in verbal form, either in person or over the radio.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

3-4.1 Identify the importance of proper terminology when communicating during an EMS event.
3-4.2 Recognize the legal status of written communications related to an EMS event.
3-4.3 State the importance of data collection during an EMS event.
3-4.4 Organize a list of patient assessment information in the correct order for transmission to medical direction according to the format used locally.
3-4.5 Identify the components of the local dispatch communication system and describe their function and use.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-intermediate student will be able to:

3-4.6 Demonstrate the ability to use the communication equipment used locally.

3-5 At the completion of this unit, the EMT-Intermediate student will be able to effectively document the essential elements of patient assessment, care and transport.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

3-5.1 Record all pertinent administrative information.
3-5.2 Review the differences between subjective and objective elements of documentation.
3-5.3 Review the confidential nature of an EMS report.

PSYCHOMOTOR OBJECTIVES

At the completion of the unit, the EMT-Intermediate student will be able to:

3-5.4 Demonstrate the ability to give verbal and written communications.
3-5.5 Perform appropriate written documentation, given a simulated patient encounter.
3-5.6 Record pertinent information using a consistent narrative format.
3-5.7 Evaluate a finished document for errors and omissions.
3-5.8 Note and record “pertinent negative” clinical findings.
3-5.9 Correct errors and omissions using proper procedures as defined under local protocol.

4-1 At the completion of this unit, the EMT-Intermediate student will be able to apply the principles of kinematics to enhance the patient assessment and predict the likelihood of injuries based on the patient's mechanism of injury.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

4-1.1 List and describe the components of a comprehensive trauma system.
4-1.2 Describe the role of and differences between levels of trauma centers.
4-1.3 Identify trauma-triage guidelines and appropriate destination guidelines following local and state protocols for transport considerations of the trauma patient.
4-1.4 Describe the criteria and procedure for air medical transport.
4-1.5 Review energy and force as they relate to trauma.
4-1.6 Review laws or motion and energy and understand the role that increased speed has on injuries.
4-1.7 Review each type of impact and its effect on unrestrained victims (frontal impacts; lateral impacts, rear impacts; rotational impacts; rollover).
4-1.8 Review the pathophysiology of the head, spine, thorax, and abdomen that results from the above forces.
4-1.9 Review organ collisions that occur in blunt trauma and vehicular collisions.
4-1.10 Review the effects that restraint systems (including seat belts, airbags, and child safety seats) have on the injury patterns found in motor vehicle crashes.
4-1.11 Review specific injuries and their causes as related to interior and exterior vehicle damage.
4-1.12 Review the kinematics of penetrating injuries.
4-1.13 Review the motion and energy considerations of mechanisms other than motor vehicle crashes.
4-1.14 Review the role of kinematics as an additional tool for patient assessment.

4-2 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with hemorrhage or shock.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

4-2.1 Describe the epidemiology, including the morbidity, mortality and prevention strategies for shock and hemorrhage.
4-2.2 Review the treatment plan and management of hemorrhage and shock.
4-2.3 Review the management of external and internal hemorrhage.
4-2.4 Differentiate between controlled and uncontrolled hemorrhage.
4-2.5 Apply epidemiology to develop prevention strategies for hemorrhage and shock.
4-2.6 Differentiate between compensated and decompensated shock.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

4-2.7 Demonstrate assessment and management of the patient with signs and symptoms of shock from any cause.

4-3 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the management plant for the patient with a burn injury.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

4-3.1 Review the pathophysiologic complications and systemic complications of a burn injury.

4-3.2 Review and describe types of burn injuries, including a thermal burn, inhalation burn, a chemical burn, an electrical burn, and a radiation exposure.

4-3.3 Review and describe the depth classifications of burn injuries, including a superficial burn, a partial-thickness burn, a full-thickness burn and other depth classifications described by local protocol.

4-3.4 Review and describe methods for determining body surface area percentage of a burn injury including the "rule of nines", the "rule of palms", and other methods described by local protocol.

4-3.5 Review and describe the severity of a burn including a minor burn, a moderate burn, a severe burn, and other severity classifications described by local protocol.

4-3.6 Review criteria for determining the severity of a burn injury between a pediatric patient and an adult patient.

4-3.7 Review conditions associated with burn injuries, including trauma, blast injuries, airway compromise, respiratory compromise, and child abuse.

4-3.8 Apply the knowledge of all types of burn injuries to form a field impression and implement a management plan.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

4-3.9 Take body substance isolation procedures during assessment and management of patients with a burn injury.

4-3.10 Demonstrate appropriate assessment and management of a patient with a burn injury, including those caused by a thermal burn, inhalation burn, chemical burn, an electrical burn and a radiation exposure, and include the appropriate pharmacological considerations and transport decision.

4-4 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for a patient with a thoracoabdominal injury.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

4-4.1 Review the anatomy and physiology of the organs and structures related to thoracic and abdominal injuries.
4-4.2 Predict thoracic and abdominal injuries based on mechanism of injury.
4-4.3 Review the types of thoracic and abdominal injuries.
4-4.4 Review the pathophysiology of thoracic and abdominal injuries.
4-4.5 Review the assessment findings associated with thoracic and abdominal injuries.
4-4.6 Review the management of thoracic and abdominal injuries.
4-4.7 Review the need for rapid intervention and transport of the patient with thoracic and/or abdominal injuries.
4-4.8 Review the epidemiology and pathophysiology of specific chest wall injuries, including:
    a. Rib fracture
    b. Sternal fracture
    c. Flail Chest
4-4.9 Review the assessment findings associated with chest wall injuries.
4-4.10 Review the need for rapid intervention and transport of the patient with chest wall injuries.
4-4.11 Review the management of chest wall injuries, including rib fractures, sternal fractures and flail chest.
4-4.12 Review the pathophysiology, assessment and management of injury to the lung, including:
    a. Hemothorax
    b. Hemopneumothorax
    c. Pulmonary contusion
    d. Open pneumothorax
    e. Simple/Tension pneumothorax
4-4.13 Review the pathophysiology, assessment and management of abdominal injuries.
4-4.14 Review the pathophysiology, assessment and management of myocardial injuries, Including:
    a. Pericardial tamponade
    b. Myocardial contusion
4-4.15 Discuss the pathophysiology, assessment and management of traumatic asphyxia.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate will be able to:

4-4.16 Formulate a field impression based on the assessment findings.

4-4.17 Develop a patient management plan based on the field impression.

4-4.18 Demonstrate a clinical assessment for a patient with suspected thoracic trauma.

4-4.19 Demonstrate the following techniques of management for thoracic injuries:

a. Fracture stabilization
b. ECG monitoring
c. Oxygenation and ventilation
d. Chest Decompression

4-4.20 Formulate a field impression based on the assessment findings.

4-4.21 Develop a patient management plan based on the field impression.

4-5 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for a patient with a head injury.

COGNITIVE OBJECTIVES
At the completion of this unit, the EMT-Intermediate will be able to:

4-5.1 Explain the pathophysiology of head/brain injuries.
4-5.2 Explain the concept of increasing ICP.
4-5.3 Describe and explain the general management of the head/brain injury patient.

4-6 At the completion of this unit, the EMT-Intermediate student will be able to demonstrate the practical skills of managing trauma patients.

PSYCHOMOTOR OBJECTIVES
At the completion of this unit, the EMT-Intermediate student will be able to:

4-6.1 Demonstrate a clinical assessment to determine the proper treatment plan for a patient with a suspected musculoskeletal injury.
4-6.2 Demonstrate the assessment and management of a patient with signs and symptoms of soft tissue injury, including:
   a. contusion
   b. hematoma
   c. crushing
   d. abrasion
   e. laceration
   f. avulsion
   g. amputation
   h. impaled object
   i. penetration/puncture
   j. blast
4-6.3 Demonstrate immobilization of the urgent and non-urgent patient with assessment findings of spinal injury from the following presentations:
   a. supine
   b. prone
   c. semi-prone
   d. sitting
   e. standing
4-6.4 Demonstrate preferred methods for stabilization of a helmet from a potentially spine injured patient.
4-6.5 Demonstrate helmet removal techniques, following local protocol decisions.
4-6.6 Demonstrate alternative methods for stabilization of a helmet from a potentially spine injured patient.
4-6.7 Demonstrate documentation of assessment before, during and after spinal immobilization.

5-1 At the end of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory emergencies.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-1.1 Review abnormal assessment findings associated with pulmonary diseases and conditions.

5-1.2 Compare various airway and ventilation techniques used in the management of pulmonary diseases.

5-1.3 Review the pharmacological preparations that EMT-Intermediates use for management of respiratory diseases and conditions.

5-1.4 Review the use of equipment used during the physical examination of patients with complaints associated with respiratory diseases and conditions.

5-1.5 Describe the pathophysiology, assessment findings, and management for the following respiratory diseases and conditions:

a. Bronchial asthma
b. Chronic bronchitis
c. Emphysema
d. Pneumonia
e. Pulmonary edema
f. Spontaneous pneumothorax
g. Hyperventilation syndrome
h. Pulmonary thromboembolism

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-1.8 Demonstrate and record pertinent assessment findings associated with pulmonary ` diseases and conditions.

5-1.6 Demonstrate proper use of airway and ventilation devices.

5-1.7 Conduct a simulated history and patient assessment, record the findings, and report appropriate management of a patient with a pulmonary disease or condition.

5-2 At the completion of the unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression, implement and evaluate the management plan for the patient experiencing cardiac emergency.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5.2-1 Identify and describe the components of assessment as it relates to patient with cardiovascular compromise.
5.2-2 Describe how ECG waveforms are produced.
5.2-3 Correlate the electrophysiological and hemodynamic events occurring throughout the entire cardiac cycle with the various ECG wave forms, segments and intervals.
5.2-4 Identify how heart rates may be determined from EKG rhythm recordings.
5.2-5 Define the cardiac cycle as it relates to electrophysiology.
5.2-6 Define the cardiac conduction system.
5.2-7 List the limitation of a rhythm strip.
5.2-8 List the components of a rhythm strip.
5.2-9 Explain the systematic approach to rhythm interpretation.
5.2-10 Describe a systematic approach to the analysis and interpretation of cardiac arrhythmias.
5.2-11 List the clinical indications for manual defibrillation.
5.2-12 Review the clinical indications for the use of the Automatic External Defibrillator.
5.2-13 Define angina pectoris and myocardial infarction (MI).
5.2-14 List other clinical conditions that may mimic signs and symptoms of angina pectoris and myocardial infarction.
5.2-15 List and describe the assessment parameters to be evaluated in a patient with chest pain.
5.2-16 Identify what is meant by OPQRST of chest pain assessment.
5.2-17 List and describe the initial assessment parameters to be evaluated in a patient with chest pain that may be myocardial in origin.
5.2-18 Identify the anticipated clinical presentation of a patient with chest pain that may be angina pectoris or myocardial infarction.
5.2-19 Describe the pharmacological agent available to the EMT-Intermediate for use in the management of the patient with chest pain that may be indicative of angina or myocardial infarction.
5.2-20 Define the terms ”congestive heart failure” and “pulmonary edema.”
5.2-21 Describe the early and late sign symptoms of pulmonary edema.
5.2-22 Explain the clinical significance of paroxysmal nocturnal dyspnea.
5.2-23 Define the term “hypertensive emergency.”
5.2-24 Describe the clinical features of the patient with a hypertensive emergency.
5.2-25 Review the term “cardiac arrest.”
5.2-26 Review the term “resuscitation.”
5.2-27 Identify critical actions necessary in caring for the patient in cardiac arrest.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit the EMT-Intermediate student will be able to:

5.2-28 Demonstrate a working knowledge of the interpretation of Sinus Rhythm, Sinus Bradycardia, Sinus Tachycardia, Ventricular Tachycardia, Ventricular Fibrillation, Asystole and Artifact.

5.2-29 Given a model of a patient with signs and symptoms of a cardiac emergency, position the patient to afford comfort, relief and treatment including administration of pharmacological and/or electrical interventions appropriate for the patient's clinical condition.

5.2-30 Demonstrate the appropriate use of the Automatic External Defibrillator.

5.2-31 Demonstrate the appropriate use of manual defibrillation.

5.3 At the completion of this unit the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for the patient with a diabetic emergency.

COGNITIVE OBJECTIVE

At the completion of this unit the EMT-Intermediate student will be able to:

5.3-1 Describe the pathophysiology of diabetes mellitus.
5.3-2 Describe the effects of decreased levels of insulin on the body.
5.3-3 Correlate abnormal findings in assessment with clinical significance in the patient with a diabetic emergency.
5.3-4 Discuss the management of diabetic emergencies, to include blood glucose monitoring.
5.3-5 Describe the mechanism of ketone body formation and its relationship to ketoacidosis.
5.3-6 Describe the effects of decreased levels of insulin on the body.
5.3-7 Discuss the pathophysiology of hypoglycemia.
5.3-8 Recognize the signs and symptoms of the patient with hypoglycemia.
5.3-9 Describe the management of a hypoglycemic patient.
5.3-10 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hypoglycemia.
5.3-11 Discuss the pathophysiology of hyperglycemia.
5.3-12 Recognize the signs and symptoms of the patient with hyperglycemia.
5.3-13 Describe the management of the hyperglycemic patient.
5.3-14 Differentiate between diabetic emergencies based on assessment and history.
5.3-15 Correlate abnormal findings in the assessment with the clinical significance in the patient with diabetic emergencies.
5.3-16 Develop a patient management plan based on field impression in the patient with a diabetic emergency.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5.3-17 Perform an appropriate assessment and management of a patient with signs and symptoms of a diabetic emergency.
5.3-18 Demonstrate the appropriate technique to perform blood glucose monitoring.

5-4 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for the patient with an allergic or anaphylactic reaction.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-4.1 Review allergic reaction.
5-4.2 Review anaphylaxis.
5-4.3 Review allergens.
5-4.4 Review the common methods of entry of substances into the body.
5-4.5 List common antigens most frequently associated with anaphylaxis.
5-4.6 Review physical manifestations in anaphylaxis.
5-4.7 Recognize the signs and symptoms related to anaphylaxis.
5-4.8 Differentiate among the various treatment and pharmacological interventions used in the management of anaphylaxis.
5-4.9 Integrate the pathophysiological principles of the patient with anaphylaxis.
5-4.10 Correlate abnormal findings in assessment with the clinical significance in the patient with anaphylaxis.
5-4.11 Develop a treatment plan based on field impression in the patient with allergic reaction and anaphylaxis.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-4.12 Perform an appropriate assessment and management of a patient with signs and symptoms of an allergic reaction or anaphylaxis.

5-5 At the completion of this unit, the EMT-Intermediate student will be able to utilize assessment findings to formulate a field impression and implement a treatment plan for the patient with a toxic exposure.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-5.1 Identify appropriate personal protective equipment and scene safety awareness concerns in dealing with toxicologic emergencies.
5-5.2 Review the routes of entry of toxic substances into the body.
5-5.3 Identify the need for rapid intervention and transport of the patient with a toxic substance emergency.
5-5.4 Review the management of toxic substances.
5-5.5 Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by inhalation, ingestion, absorption and injection.
5-5.6 Utilize assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by inhalation, ingestion, absorption and injection.
5-5.7 Review poisoning by overdose.
5-5.8 Review the signs and symptoms related to the most common poisonings by overdose.
5-5.9 Correlate the abnormal findings in assessment with the clinical significance in patients with the most common poisonings by overdose.
5-5.10 Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by overdose.
5-5.11 Utilize assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by overdose.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-5.12 Perform an appropriate assessment and management of a patient with signs and symptoms of a toxic exposure.

5-6 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with a neurological emergency.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-6.1 Discuss the general pathophysiology of non-traumatic neurologic emergencies.
5-6.2 Discuss the general assessment findings associated with non-traumatic neurologic emergencies.
5-6.3 Identify the need for rapid intervention and transport of the patient with non-traumatic neurologic emergencies.
5-6.4 Discuss the assessment findings and management for stroke and intracranial hemorrhage.
5-6.5 Discuss the assessment findings and management for transient ischemic attack.
5-6.6 Discuss the assessment findings and management for epilepsy/seizures.
5-6.7 Discuss the assessment findings and management for non-specific coma or altered level of consciousness/syncope/weakness/headache.
5-6.8 Develop a patient management plan based on field impression in the patient with neurological emergencies.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-6.9 Perform an appropriate assessment and management of a patient with a non-traumatic neurological emergency.

5-7 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with non-traumatic abdominal pain.

COGNITIVE OBJECTIVES

At the completion of the unit, the EMT-Intermediate student will be able to:

5-7.1 Discuss the pathophysiology of non-traumatic abdominal emergencies.

5-7.2 Discuss the signs and symptoms of non-traumatic acute abdominal pain including but not limited to:

a. Cholecystitis
b. Ulcer Disease
c. Appendicitis
d. Urinary calculus
e. Gastritis
f. Intestinal Obstruction

5-7.3 Discuss the management of the patient with non-traumatic acute abdominal pain.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-7.4 Perform an appropriate assessment and management of the patient with signs and symptoms of a non-traumatic acute abdominal disorder.

5-8 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with an environmentally-induced emergency.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-8.1 Review "environmental emergency".
5-8.2 Review environmental factors that may cause illness or exacerbate a pre-existing illness.
5-8.3 Review environmental factors that may complicate treatment or transport decisions.
5-8.4 Review the principal types of environmental illnesses.
5-8.5 Review normal, critically high and critically low body temperatures.
5-8.6 Describe several methods of temperature monitoring.
5-8.7 Describe the body's compensatory process for overheating.
5-8.8 Describe the body's compensatory process for excess heat loss.
5-8.9 List the common forms of heat and cold disorders.
5-8.10 List the common predisposing factors associated with heat and cold disorders.
5-8.11 Define heat illness.
5-8.12 Identify signs and symptoms of heat illness.
5-8.13 List the predisposing factors for heat illness.
5-8.14 List measures to prevent heat illness.
5-8.15 Relate symptomatic findings to the commonly used terms: heat cramps, heat exhaustion and heat stroke.
5-8.16 Discuss how one may differentiate between fever and heat stroke.
5-8.17 Discuss the role of fluid therapy in the treatment of heat disorders.
5-8.18 Differentiate among the various treatments and interventions in the management of heat disorders.
5-8.19 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient who has dehydration, heat exhaustion, or heat stroke.
5-8.20 Review hypothermia.
5-8.21 Review predisposing factors for hypothermia.
5-8.22 Review measures to prevent hypothermia.
5-8.23 Identify differences between mild and severe hypothermia.
5-8.24 Describe differences between chronic and acute hypothermia.
5-8.25 Review signs and symptoms of hypothermia.
5-8.26 Correlate abnormal findings in assessment with their clinical significance in the patient with hypothermia.
5-8.27 Discuss the impact of severe hypothermia on standard BCLS and ACLS or equivalent algorithms and transport considerations.
5-8.28 Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient who has either mild or severe hypothermia.
5-8.29 Review near drowning.
5-8.30 Review the signs and symptoms of near drowning.
5-8.31 Discuss the complications and protective role of hypothermia in the context of near drowning.

5-8.32 Correlate the abnormal findings in assessment with the clinical significance in the patient with near drowning.
5-8.33 Differentiate among the various treatments and interventions in the management of near drowning.
5-8.34 Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the near-drowning patient.
5-8.35 Integrate pathophysiological principles of the patient affected by an environmental emergency.
5-8.36 Differentiate between environmental emergencies based on assessment findings.
5-8.37 Correlate abnormal findings in the assessment with the clinical significance in the patient affected by an environmental emergency.
5-8.38 Develop a patient management plan based on the field impression of the patient affected by an environmental emergency.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-8.39 Perform an appropriate assessment and management of the patient with signs and symptoms of an environmentally-induced emergency, including hyperthermia, hypothermia and near-drowning.

5-9 At the completion of this unit, the EMT-Intermediate student will be able to utilize assessment findings to form a field impression and implement a management plan for patients with behavioral emergencies.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-9.1 Review the pathophysiology of behavioral emergencies.
5-9.2 Review appropriate measures to ensure the safety of the patient, EMT-Intermediate and others.
5-9.3 Review techniques for a physical assessment in a patient with behavioral problems.
5-9.4 Review therapeutic interviewing techniques for gathering information from a patient with a behavioral emergency.
5-9.5 List factors that may indicate a patient is at increased risk for suicide.
5-9.6 Describe circumstances in which relatives, bystanders, and others should be removed from the scene.
5-9.7 Describe medical/legal considerations for managing a patient with a behavioral emergency.
5-9.8 Review situations in which the EMT-Intermediate is expected to transport a patient against his will.
5-9.9 Formulate a field impression based on the assessment findings for patients with behavioral emergencies.
5-9.10 Develop a patient management plan based on the field impression for patients with behavioral emergencies.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-9.11 Demonstrate safe techniques for managing and restraining a violent patient.

5-10 At the completion of this unit, the EMT-Intermediate student will be able to utilize assessment findings to formulate a field impression and implement the management plan for the patient experiencing a gynecological emergency.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-10.1 Review the anatomic structures and physiology of the female reproductive system.
5-10.2 Describe how to assess a patient with a gynecological complaint.
5-10.3 Explain how to recognize a gynecological emergency.
5-10.4 Describe the general care for any patient experiencing a gynecological emergency.
5-10.5 Describe the pathophysiology, assessment and management of specific gynecological emergencies, including:

a. Pelvic inflammatory disease
b. Ruptured ovarian cyst
c. Ectopic pregnancy
e. Vaginal bleeding
e. Spontaneous abortion
f. Uterine rupture
g. Supine hypotension syndrome

5-10.6 Describe the general findings and management of the sexually assaulted patient.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-10.7 Demonstrate how to assess a patient with a gynecological complaint.
5-10.8 Demonstrate how to provide care for a patient with:

a. Excessive vaginal bleeding
b. Abdominal pain
c. Sexual assault

6-1 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate and implement a treatment plan for a normal or abnormal labor, including trauma in pregnancy.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

6-1.1 Review the normal events of pregnancy.
6-1.2 Review how to assess an obstetrical patient.
6-1.3 Review the stage of Labor and the EMT-Intermediate's role in each stage.
6-1.4 Review between normal and abnormal delivery.
6-1.5 Review and describe complications associated with pregnancy and delivery.
6-1.6 Review predelivery emergencies.
6-1.7 Review indications of an imminent delivery.
6-1.8 Differentiate the management of a patient with predelivery emergencies from a normal delivery.
6-1.9 Review the steps in the predelivery preparation of the mother.
6-1.10 Review the steps to assist in the delivery of a newborn.
6-1.11 Review how to care for the newborn.
6-1.12 Review how and when to cut the umbilical cord.
6-1.13 Review the management of the mother post-delivery.
6-1.14 Review the procedures for handling abnormal deliveries.
6-1.15 Describe the procedures for handling complications of pregnancy.
6-1.16 Describe the procedures for handling maternal complications of labor.
6-1.17 Describe special considerations when meconium is present in amniotic fluid or during delivery.
6-1.18 Describe special considerations of a premature baby.
6-1.19 Describe the procedure for handling the pregnant patient who is a victim of trauma.

PSYCHOMOTOR OBJECTIVES

At the completion of the unit, the EMT-Intermediate student will be able to:

6-1.20 Demonstrate how to assess an obstetric patient.
6-1.21 Demonstrate how to prepare the obstetric patient for delivery.
6-1.22 Demonstrate how to assist in the normal cephalic delivery of the fetus.
6-1.23 Demonstrate how to provide post-delivery care of the mother.
6-1.24 Demonstrate how to assist with an abnormal delivery.
6-1.25 Demonstrate how to care for the mother with delivery complications.
6-1.26 Demonstrate the appropriate treatment and transport position for a pregnant trauma patient.

6-2 At the completion of this unit, the EMT-Intermediate student will be able to utilize assessment findings to formulate a field impression and implement the treatment plan for the resuscitation of a neonatal patient.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate will be able to:

6-2.1 Define the term newborn.
6-2.2 Define the term neonate.
6-2.3 Identify the primary signs utilized for evaluating a newborn during resuscitation.
6-2.4 Formulate an appropriate treatment plan for providing initial care to a newborn.
6-2.5 Identify the appropriate use of the APGAR score in caring for a newborn.
6-2.6 Calculate the APGAR score given various newborn situations.
6-2.7 Determine when ventilatory assistance is appropriate for the newborn.
6-2.8 Prepare appropriate ventilation equipment and adjuncts for a newborn.
6-2.9 Determine when chest compressions are appropriate for a newborn.
6-2.10 Discuss appropriate chest compression techniques for a newborn.
6-2.11 Reassess a patient following chest compressions and ventilations.
6-2.12 Determine when blow-by-oxygen delivery is appropriate for a newborn.
6-2.13 Discuss appropriate blow-by-oxygen delivery devices for a newborn.
6-2.14 Assess patient improvement due to assisted ventilations.
6-2.15 Discuss the initial steps in resuscitation of a newborn.
6-2.16 Assess patient improvement due to blow-by-oxygen delivery.
6-2.17 Discuss appropriate transport guidelines for a newborn.
6-2.18 Discuss the pathophysiology of meconium aspiration in the neonate.
6-2.19 Discuss the assessment findings associated with meconium aspiration in the neonate.
6-2.20 Discuss the management/treatment plan for meconium aspiration in the neonate.
6-2.21 Discuss the pathophysiology of bradycardia in the neonate.
6-2.22 Discuss the assessment findings associated with bradycardia in the neonate.
6-2.23 Discuss the management/treatment plan for bradycardia in the neonate.
6-2.24 Discuss the pathophysiology of respiratory distress/cyanosis in the neonate.
6-2.25 Discuss the assessment findings associated with respiratory distress/cyanosis in the neonate.
6-2.26 Discuss the management/treatment plan for respiratory distress/cyanosis in the neonate.
6-2.27 Discuss the pathophysiology of hypothermia in the neonate.
6-2.28 Discuss the assessment findings associated with hypothermia in the neonate.
6-2.29 Discuss the management/treatment plan for hypothermia in the neonate.
6-2.30 Discuss the assessment findings associated with cardiac arrest in the neonate.
6-2.31 Discuss the management/treatment plan for cardiac arrest in the neonate.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

6-2.32 Demonstrate preparation of a newborn resuscitation area.
6-2.33 Demonstrate appropriate assessment techniques for examining a newborn.
6-2.34 Demonstrate appropriate assisted ventilations for a newborn.
6-2.35 Demonstrate appropriate chest compression and ventilation techniques for a newborn, following current BCLS guidelines.
6-2.36 Demonstrate the initial steps in resuscitation of a newborn.
6-2.37 Demonstrate blow-by-oxygen delivery for a newborn.

6-3 At the completion of this unit, the EMT-Intermediate student will be able to utilize assessment findings to formulate a field impression and implement the treatment plan for a pediatric patient.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

6-3.1 Identify the growth and developmental characteristics of infants and children.
6-3.2 Identify anatomy and physiology characteristics of infants and children.
6-3.3 Describe techniques for successful assessment of infants and children.
6-3.4 Identify the common responses of families to acute illness and injury of an infant or child.
6-3.5 Describe techniques for successful interaction with families of acutely ill or injured infants and children.
6-3.6 Discuss pediatric patient assessment.
6-3.7 Identify "normal" age group related vital signs.
6-3.8 Discuss the appropriate equipment utilized to obtain pediatric vital signs.
6-3.9 Determine appropriate airway adjuncts for infants and children.
6-3.10 Identify complications of improper endotracheal intubation procedure in infants and children.
6-3.11 Define respiratory distress.
6-3.12 Define respiratory failure.
6-3.13 Define respiratory arrest.
6-3.14 Discuss the pathophysiology of respiratory distress/failure in infants and children.
6-3.15 Discuss the assessment findings associated with respiratory distress/failure in infants and children.
6-3.16 Discuss the management/treatment plan for respiratory distress/failure in infants and children.
6-3.17 Differentiate between upper and lower airway obstruction.
6-3.18 Discuss the pathophysiology of croup in infants and children.
6-3.19 Discuss the assessment findings associated with croup in infants and children.
6-3.20 Discuss the management/treatment plan for croup in infants and children.
6-3.21 Discuss the pathophysiology of foreign body aspiration in infants and children.
6-3.22 Discuss the assessment findings associated with foreign body aspiration in infants and children.
6-3.23 Discuss the management/treatment plan for foreign body aspiration in infants and children.
6-3.24 Discuss the pathophysiology of epiglottitis in infants and children.
6-3.25 Discuss the assessment findings associated with epiglottitis in infants and children.
6-3.26 Discuss the management/treatment plan for epiglottitis in infants and children.
6-3.27 Discuss the pathophysiology of asthma/bronchiolitis in infants and children.
6-3.28 Discuss the assessment findings associated with asthma/bronchiolitis in infants and children.
6-3.29 Discuss the management/treatment plan for asthma/bronchiolitis in infants and children.
6-3.30 Identify the major classifications of pediatric cardiac rhythms.
6-3.31 Discuss the pathophysiology of tachydysrhythmias in infants and children.
6-3.32 Discuss the assessment findings associated with tachydysrhythmias in infants and children.
6-3.33 Discuss the management/treatment plan for tachydysrhythmias in infants and children.

6-3.34 Discuss the pathophysiology of bradydysrhythmias in infants and children.
6-3.35 Discuss the assessment findings associated with bradydysrhythmias in infants and children.
6-3.36 Discuss the management/treatment plan for bradydysrhythmias in infants and children.
6-3.37 Discuss the primary etiologies of cardiopulmonary arrest in infants and children.
6-3.38 Discuss basic cardiac life support guidelines for infants and children.
6-3.39 Identify appropriate parameters for performing infant and child CPR.
6-3.40 Discuss the pathophysiology of seizures in infants and children.
6-3.41 Discuss the assessment findings associated with seizures in infants and children.
6-3.42 Discuss the management/treatment plan for seizures in infants and children.
6-3.43 Discuss the pathophysiology of hypoglycemia in infants and children.
6-3.44 Discuss the assessment findings associated with hypoglycemia in infants and children.
6-3.45 Discuss the management/treatment plan for hypoglycemia in infants and children.
6-3.46 Discuss the pathophysiology of hyperglycemia in infants and children.
6-3.47 Discuss the assessment findings associated with hyperglycemia in infants and children.
6-3.48 Discuss the management/treatment plan for hyperglycemia in infants and children.
6-3.49 Discuss the appropriate equipment for vascular access in infants and children.
6-3.50 Identify complications of vascular access for infants and children.
6-3.51 Discuss anatomical features of children that predispose them to certain injuries.
6-3.52 Identify infant and child trauma patients who require spinal immobilization.
6-3.53 Discuss the assessment findings associated with trauma in infants and children.
6-3.54 Discuss the assessment findings and management considerations for pediatric trauma patients with the following specific injuries:
    a. head/neck injuries
    b. chest injuries
    c. abdominal injuries
    d. extremity injuries (including burns)
6-3.55 Define child abuse.
6-3.56 Define child neglect.
6-3.57 Discuss the assessment findings associated with abuse and neglect in infants and children.
6-3.58 Discuss the management/treatment plan for abuse and neglect in infants and children.
6-3.59 Define sudden infant death syndrome (SIDS).
6-3.60 Discuss the parent/caregiver responses to the death of an infant or child.
6-3.61 Discuss the assessment findings associated with a SIDS infant.
6-3.62 Discuss the management/treatment plan for SIDS infants.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

6-3.63 Demonstrate the appropriate approach for treating infants and children.
6-3.64 Demonstrate appropriate intervention techniques with families of acutely ill or injured infants and children.
6-3.65 Demonstrate an appropriate assessment for different developmental age groups.
6-3.66 Demonstrate appropriate techniques for measuring pediatric vital signs.
6-3.67 Demonstrate the techniques/procedures for treating infants and children with respiratory distress.
6-3.68 Demonstrate the proper technique for administering blow-by-oxygen to infants and children.
6-3.69 Demonstrate proper utilization of a pediatric non-rebreather oxygen mask.
6-3.70 Demonstrate endotracheal intubation procedures in infants and children.
6-3.71 Demonstrate appropriate treatment/management of intubation complications for infants and children.
6-3.72 Demonstrate appropriate techniques for insertion of peripheral IV catheters for infants and children.
6-3.73 Demonstrate appropriate techniques for insertion of an IO line for infants and children.
6-3.74 Demonstrate appropriate immobilization techniques for infants and children.
6-3.75 Demonstrate treatment of infants and children with head injuries, chest injuries, abdominal injuries and extremity injuries, including burns.
6-3.76 Demonstrate appropriate parent/caregiver interviewing techniques for infant and child death situations.
6-3.77 Demonstrate proper infant and child CPR.
6-3.78 Demonstrate proper techniques for performing infant and child defibrillation.

6-4 At the completion of this unit, the EMT-Intermediate student will be able to use assessment findings to formulate a management plan for the geriatric patient.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

6-4.1 Discuss expected physiological changes associated with aging.
6-4.2 Describe common psychological reactions associated with aging.
6-4.3 Discuss problems with mobility in the elderly.
6-4.4 Describe communication strategies used to provide psychological support.
6-4.5 Discuss factors that may complicate the assessment of the elderly patient.
6-4.6 Discuss common complaints, injuries, and illnesses of elderly patients.
6-4.7 Discuss the impact of polypharmacy, dosing errors, medication non-compliance, and drug sensitivity on patient assessment and management.
6-4.8 Discuss various body system changes associated with age.
6-4.9 Discuss the assessment and management of the elderly patient with complaints related to the following body systems:
    a. Respiratory
    b. Cardiovascular
    c. Nervous
    d. Endocrine
    e. Gastrointestinal
6-4.10 Describe the assessment of nervous system diseases in the elderly, including CVA, delirium, dementia, Alzheimer's disease and Parkinson's Disease.
6-4.11 Discuss the assessment of an elderly patient with gastrointestinal problems, including GI hemorrhage and bowel obstruction.
6-4.12 Discuss the normal and abnormal changes with age related to toxicology.
6-4.13 Discuss the assessment of the elderly patient with complaints related to toxicology.
6-4.14 Describe the assessment and management of the elderly patient with toxicological problems.
6-4.15 Discuss the normal and abnormal changes of the musculoskeletal system with age.
6-4.16 Discuss the assessment and management of the elderly patient with complaints associated with trauma.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

6-4.17 Demonstrate the ability to assess a geriatric patient.
6-4.18 Demonstrate the ability to apply assessment findings to the geriatric management plan.