

## Crafton Hills College Course Outline

1. **Discipline:** Emergency Medical Services
2. **Department:** Emergency Services
3. **Course Title:** Patient Assessment for Paramedics
4. **Course I.D:** EMS 150
5. **Prerequisite(s):** Admission into the EMT-Paramedic Program  
**Corequisite(s):** EMS 151, EMS 152, EMS 153, EMS 154, and EMS 155  
**Departmental Recommendation(s):** None

6. **Semester Units:** 3

7. **Minimum Semester Hours:**

Lecture: 48    Lab: 0    Clinic: 0    Field: 0

8. **Need for the Course:**

The Emergency Medical Technician-Paramedic (EMT-P) provides prehospital care under medical control to acutely ill and injured patients in often uncontrolled and unstable environments. The EMT-P must initiate emergency medical care based on a thorough patient assessment and the recognition of presenting conditions. This course provides students with the foundations of basic patient assessment necessary for the EMT-P and provides the bridge between basic EMT-1 assessment and treatment philosophies and advanced paramedic assessment and treatment philosophies. Students successfully completing this course will meet the entry-level competencies as described by license and accreditation requirements for the EMT-P. EMS 150 is associate degree applicable.

9. **Goals for the Course:**

This course is appropriate to the college's mission in that it is part of a complete vocational education program leading to employment. This is one in a series of courses integral to complete the instruction necessary to be licensed as a paramedic in the State of California. Successful completion of this course assures the basic theoretical and scientific knowledge of assessment and pathophysiology to deliver pre-hospital patient care. The course provides the knowledge and skills of patient assessment as they pertain to the pre-hospital emergency care of adults, adolescents, children and infants.

10. **Catalog Description:**

Overview of pre-hospital patient assessment and pathophysiology for the Paramedic. Provides the foundational knowledge and skills to effectively assess and treat patients in the pre-hospital setting and make effective clinical care decisions.

11. **Schedule Description:**

Overview of pre-hospital patient assessment and pathophysiology for the Paramedic. Provides the foundational knowledge and skills to effectively assess and treat patients in the pre-hospital setting and make effective clinical care decisions.

## 12. Entrance Skills:

### A. Requisite Skills:

**Upon entering this course, students must be able to:**

1. provide proof of current California EMT-Basic certification with a minimum of six months full-time experience or 1000 hours part-time experience
2. provide proof of a negative TB test within one year or chest x-ray within two years; completed Hepatitis B immunization series or titer showing immunity; and MMR immunization or titer showing immunity to rubella
3. read at the 12<sup>th</sup> grade level or higher
4. demonstrate math proficiency at the 10<sup>th</sup> grade level or higher
5. pass a written EMT-Basic competency exam with 80 percent or higher
6. pass a written anatomy and physiology exam with 80 percent or higher
7. demonstrate competence in simulated field situations with a score of 80 percent or higher
8. eligible to be licensed/accredited by state and local EMS agencies
9. write an essay using proper spelling, grammar and punctuation, incorporating concepts and data and research into a coherent paragraph, that demonstrates inference to support a point.
10. As a result of satisfactorily completing EMS 151:
  - a. Meet the performance expectations required by U.S. Department of Transportation and State of California California Regulation
  - b. Identify in writing, when given information on various **spell out acronym** (EMC) team members, their respective responsibilities and instruction, how team members interact.
  - c. Report how paramedics react with other team members, including system components, the perceptions of the other team members, and the relation between the various EMC team members in their professional responsibilities. (EMS1) [FA1]
  - d. Identify through discussion the important general concepts for effective team interaction. (EMS2)
  - e. Describe key historical events that have influenced the development of EMC. (EMS3)
  - f. List current state requirements for paramedic continuing education. (EMS4)
  - g. Describe how professionalism applies to the paramedic while on and off duty. (EMS5)
  - h. Describe examples of professional behavior, including appearance, motivation, hygiene, teamwork, diplomacy, and patient advocacy. (EMS6)
  - i. Provide examples of activities that constitute appropriate professional behaviors. (EMS7)
  - j. Describe the role of the EMC physician in providing medical direction. (EMS8)
  - k. Describe the benefits of on-line and off-line medical direction. (EMS9)
  - l. Describe the process for development of local policies and protocols. (EMS10)
  - m. Defend the need and importance of continuing education. (EMS11)

- n.** Explain the need to serve as the patient advocate including those with special needs, alternative life styles, and cultural diversity. (EMS12)
- o.** Advocate for and participate in efforts to improve the EMC system. (EMS13)
- p.** Exhibit professional behaviors. (EMS14)
- q.** Identify the importance of communications in EMC. (C1)
- r.** List factors that enhance and impede effective communications. (C2)
- s.** Organize a patient assessment for communication with medical control according to local protocols. (C3)
- t.** Identify in writing the components of communications; how to apply the components of communication to themselves, patients, and others; and the aspects of first impressions various unpredictable problems in emergency services communications. (C4)
- u.** Identify in writing, when given reading materials and presentation on Emergency Medical Services (EMS) laws, the components of EMS laws governing abandonment, child abuse, elder abuse, and other issues that require reporting; consent (implied, actual and informed); Good Samaritan laws; legal detention (Welfare and Institutions Code, Section 5150); negligence; and medical practice acts affecting the EMT-Paramedic (EMT-P). (L1)
- v.** List the four components necessary for a civil suit. (L2)
- w.** Identify professional behavior during a deposition. (L3)
- x.** Identify the components of proper documentation and management of a patient transportation presented by EMC personnel. (L4)
- y.** Identify in writing the procedure for disagreement with other health care providers or emergency services operators, including the physician-on-scene, regarding patient care. (L5)
- z.** State the components of special consents that may present in emergency services. (L6)
- aa.** Define in writing the Title 22 mandates regarding standards of care, basic scope of practice, licensure and accreditation in State of California. (L7)
- bb.** Differentiate between legal and ethical responsibilities. (L8)
- cc.** Define and support the four criteria necessary to have an enforceable release of liability. (L9)
- dd.** Explain the importance of patient confidentiality. (L10)
- ee.** Identify the steps to take if a patient refuses care or transportation. (L11)
- ff.** Explain the purpose of advanced directives. (L12)
- gg.** Prepare a prehospital run report, including an appropriately detailed narrative. (L13)
- hh.** Advocate the need to show respect for the rights and feelings of patients and other providers. (L14)
- ii.** Model the protection of patient confidentiality. (L15)
- jj.** Defend the value of advanced medical directives. (L16)
- kk.** Identify the components of general stress in emergency services and explain how to cope with the various changes stress can effect. (S1)
- ll.** List factors that may trigger a stress response. (S2)
- mm.** Differentiate between normal or healthy and harmful or detrimental reactions to stress. (S3)
- nn.** Describe the common physiological and psychological effects of stress. (S4)
- oo.** Describe the components of critical incident stress management (CISD). (S5)

- pp.** Identify, when given a scenario involving a stressful situation, when and how CISD would be beneficial. (S6)
  - qq.** Describe the stages of the grieving process. (DD1)
  - rr.** Describe the needs of a paramedic when dealing with death and dying. (DD2)
  - ss.** Describe the challenges the EMT-P faces when dealing with the needs of others during the death and dying process. (DD3)
  - tt.** Defend the need to treat each individual with respect and dignity. (E1)
  - uu.** Assess his or her own prejudices related to the various aspects of EMC. (E2)
  - vv.** Promote and practice stress management techniques. (S7)
  - ww.** Defend the need to respect the emotional needs of dying and patients and their families. (DD3)
  - xx.** Advocate and practice the use of personal safety precautions in all scene situations. (LE1)
  - yy.** Describe how to effectively interface with members of the law enforcement community. (LE2)
  - zz.** Demonstrate and document appropriately, when given a simulated crime scene, the techniques of preservation of evidence. (LE3)
  - aaa.** List, when given instructions and a simulated emergency response, the mechanisms necessary to secure a volatile scene, scene evidence and patient protection. (LE4)
  - bbb.** Describe the history of paramedics and how this level of prehospital provider continues to identify itself. (P1)
  - ccc.** Describe in writing how the terms action, outcome, deterministic, and stochastic are significant models of thought. (P2)
  - ddd.** Discuss and apply to given scenario the ethic concept of university. (E2)
  - eee.** State in sequence, when given a lecture on medical patient presentations, the components of effective clinical presentations to physicians and other health care practitioners. (C1)
  - fff.** Identify the signs of post-traumatic stress disorder in themselves and others and explain how to obtain help from the appropriate sources for themselves and how to direct others to help. (S9)
  - ggg.** Describe in writing, when given appropriate information, the common needs of the patient, the family and the emergency services operator when dealing with death and dying; the common management techniques to be used by the EMT-P when a patient is dead or dying; and the issues of controversy in prehospital care involving death and dying. (DD5)
  - hhh.** Identify the definition of Sudden Infant Death Syndrome (SIDS), the incidence of SIDS, and the current theories on SIDS and the immediate needs of the SIDS family. (DD6)
  - iii.** Be on time and prepared for each class session, maintain confidentiality and respect the rights of others, display professional interaction by communicating in a non-judgmental and empathetic manner, and identify personal weak areas and take the necessary responsibility for self-improvement. (CR-1)
- 11.** As a result of satisfactorily completing EMS 152:
- a.** Discuss the size, shape, and location/orientation of the heart with regard to the structures of the body.
  - b.** Identify the location of the following structures on a diagram of the normal heart:
    - i.** Pericardium
    - ii.** Pulmonary Vessels

- iii. Myocardium
  - iv. Coronary Arteries
  - v. Epicardium
  - vi. Tricuspid Valve
  - vii. Right and Left Atria
  - viii. Mitral Valve
  - ix. Interatrial Septum
  - x. Aortic Valve
  - xi. Right and Left Ventricles
  - xii. Pulmonic Valve
  - xiii. Interventricular Septum
  - xiv. Papillary Muscle
  - xv. Chordae Tendoneae
  - xvi. Superior and Inferior Vena Cava
  - xvii. Aorta
- c. Discuss the distribution of the coronary arteries and the parts of the heart supplied by each artery.
  - d. Discuss the effects of increased heart rate on the contraction and relaxation phases of the cardiac cycle.
  - e. Discuss the functional differences between the right heart and left heart pumps.
  - f. Discuss the following terms that refer to cardiac physiology:
    - i. Stroke Volume
    - ii. Afterload
    - iii. Starling's Law
    - iv. Cardiac Output
    - v. Preload
    - vi. Blood Pressure
  - g. Describe nerve innervation of the heart
  - h. Name the chemical mediator of the parasympathetic nervous system and describe its primary effect on the heart.
  - i. Name the chemical mediator of the sympathetic nervous system and describe the mechanical, cardiac, and peripheral effects of:
    - i. Alpha receptor stimulation
    - ii. Beta receptor stimulation
  - j. Identify the electrolytes that affect cardiac function.
  - k. Identify the electrical properties of the heart.
  - l. Identify the normal sequence of electrical conduction through the heart and state the purpose of this conduction.
  - m. Identify the location and function of the following structures of the electrical conduction system:
    - i. SA Node
    - ii. Bundle of HIS
    - iii. Bundle Branches
    - iv. Internodal pathways
    - v. Atrial pathways
    - vi. AV Node
    - vii. Purkinje fibers
  - n. Define cardiac depolarization and repolarization and describe the major electrolyte changes that occur in each process.
  - o. Identify the three areas of the heart possessing pacemaking capabilities and intrinsic (inherent) rate of each area.
  - p. Identify the components of an electrocardiogram (EKG) and their relevance.

- q.** Define the following terms as they relate to the electrical activity of the heart:
- i.** Isoelectric line
  - ii.** P-R Interval
  - iii.** P wave
  - iv.** S-T segment
  - v.** QRS complex
  - vi.** Absolute
  - vii.** Relative
  - viii.** T wave
  - ix.** Refractory period
- r.** Identify the standard analysis criteria for interpretation of an electrocardiogram according to the AHA/ACLS guidelines.
- s.** Identify the standard criteria and hemodynamic effects of Regular Sinus Rhythm (RSR).
- t.** Identify the standard criteria, etiology, and hemodynamic effects of the following dysrhythmias:
- i.** Sinus Bradycardia
  - ii.** Sinus Tachycardia
  - iii.** Sinus Arrhythmia
  - iv.** Atrial Fibrillation
  - v.** Atrial Flutter
  - vi.** Premature Atrial Contraction
  - vii.** Junctional Rhythm
  - viii.** Premature Junctional Contraction
  - ix.** Supraventricular Tachycardia
  - x.** Idioventricular Rhythm
  - xi.** Ventricular Fibrillation
  - xii.** Ventricular Tachycardia
  - xiii.** Premature Ventricular Contraction
  - xiv.** Pacemaker Rhythm
  - xv.** Pulseless Electrical Activity
  - xvi.** Electromechanical Dissociation
  - xvii.** Asystole
  - xviii.** Agonal
- u.** Identify the standard criteria and hemodynamic effects of the following heart blocks:
- i.** First degree atrioventricular block
  - ii.** Second degree Type I atrioventricular block
  - iii.** Second degree Type II atrioventricular block
  - iv.** Third degree atrioventricular block
  - v.** Bundle branch block
- v.** Identify the prehospital management of patients exhibiting the rhythms and dysrhythmias listed above, according to AHA/ACLS guidelines.
- w.** Identify the limitations of the electrocardiogram with regard to prehospital treatment.
- x.** Define "paroxysmal."
- y.** Define valsalva.
- z.** Define unsynchronized cardioversion, synchronized cardioversion and defibrillation.
- aa.** Identify the function of the synchronizer
- bb.** Identify the indications and techniques for defibrillation, cardioversion and synchronized cardioversion.
- cc.** Identify the significance of a bruit as it relates to carotid sinus massage.

- dd.** Given a twelve lead EKG, identify the electrical axis and discuss its relevance to patient condition.
  - ee.** Discuss how infarction affects the pump.
  - ff.** Identify how toxins and depressants can affect the heart action.
  - gg.** Define and identify the two major causes of right heart failure.
  - hh.** Identify at least three major signs and symptoms of right heart failure.
  - ii.** Define and identify the two major causes of left heart failure.
  - jj.** List four major signs and symptoms of left heart failure.
  - kk.** Identify the rationale for the use of oxygen in a patient complaining of chest pain.
  - ll.** Identify the effects of atherosclerosis on the blood vessels.
  - mm.** Identify the risk factors of coronary artery disease.
  - nn.** Identify at least four factors pertinent to the history of chest pain.
- 12.** As a result of satisfactorily completing EMS 153:
- a.** Describe historical trends in pharmacology. (G1)
  - b.** List in writing the sources of various drugs. (G2)
  - c.** Categorize those statements that are true about the various names of drugs. (G3)
  - d.** Given a specific drug name and a list of different types of names, state in writing the type of name that is given. (G4)
  - e.** Describe how drugs are classified by schedule and/or class. (G5)
  - f.** Identify the role of the Federal Drug Administration (FDA) and the Drug Enforcement Administration (DEA). (G6)
  - g.** State the purpose and use of the Physicians Desk Reference (PDR). (G7)
  - h.** Describe in writing why drug standards and legislation are necessary. (G8)
  - i.** Identify the five tenets (plus one), of the patients' "Bill of Rights" of medication administration. (G9)
  - j.** List and describe general properties of drugs. (G10)
  - k.** Describe the different phases of drug activity, including pharmacokinetics and pharmacodynamics. (G11)
  - l.** Identify how the following factors alter the effects of drugs: (G12)
    - i.** age
    - ii.** weight
    - iii.** route of administration
    - iv.** underlying disease
    - v.** state of perfusion
    - vi.** other medications
    - vii.** dependent variables
    - viii.** condition
    - ix.** dose
    - x.** elimination
    - xi.** distribution
  - m.** Discuss special considerations in pharmacological treatment with respect to all age ranges. (G13)
  - n.** Rank the absorption rates from a list of methods of absorption from fastest to slowest. (G14)
  - o.** Name routes in which drugs are absorbed. (G15)
  - p.** Given a discussion of pharmaceutical products describe in writing the meaning of local effects, systemic effects, or both. (G16)
  - q.** List and define solid and liquid drug forms. (G17).
  - r.** Define the following terms:
    - i.** capsules

- ii. vials
  - iii. fluid extracts
  - iv. powders
  - v. suppositories
  - vi. powders
  - vii. pills
  - viii. tinctures
  - ix. spirits
  - x. ointments
  - xi. lozenges
  - xii. tablets
  - xiii. ampules
  - xiv. suspensions
  - xv. solutions
- s. Differentiate between enteral and parenteral routes of drug administration. (G19)
  - t. Identify those pharmaceutical agents used internally. (G20)
  - u. Identify the routes of drug administration and the advantage and disadvantages of each. (G21)
  - v. Identify local guidelines for drug administration and the amounts of each agent carried. (G22)
  - w. Identify the routes of parenteral drug administration. (G23)
  - x. Identify and discuss the following items as they relate to the administration of any drug: (G24)
    - i. dose
    - ii. indications and use
    - iii. dilution
    - iv. precautions
    - v. actions
    - vi. incompatibility
    - vii. contraindications
    - viii. side effects
    - ix. antidotes
  - y. Identify the two systems of weights and measures commonly used today in pharmacology and the common equivalents. (M1)
  - z. State the basic units of measurement that belong to the apothecary and metric system. (M2)
  - aa. State the advantages to the metric system. (M-3)
  - bb. When given a desired dose and the concentration of the drug, calculate the volume of the drug to be administered. (M4)
  - cc. Demonstrate the ability to correct perform mathematical computations necessary to calculate drip rates. (M5)
  - dd. Demonstrate the conversion of various measurements in the metric system or between the two measurements systems. (M6)
  - ee. Demonstrate basic arithmetic skills necessary to accurately complete drug administration. (M7)
  - ff. When given weight in pounds and a drug dose in milligrams per kilograms, calculate the correct dose for the patient. (M8)
  - gg. Define in writing the following terms and given a specific agent and patient response, correctly use each of the following terms: (P1)
    - i. Pharmacology
    - ii. Generic name
    - iii. Trade name/brand name
    - iv. Actions

- v. Uses
- vi. Dose range
- vii. Route
- viii. Rate of Administration
- ix. Frequency
- x. Onset of action
- xi. Duration of action
- xii. Adverse effects
- xiii. Contraindications
- xiv. Parenteral
- xv. Incompatibility
- xvi. Tolerance
- xvii. Addiction
- xviii. Indications
- xix. Precautions
- xx. Synergism
- xxi. Antagonism
- xxii. Agonist
- xxiii. Allergy
- xxiv. anaphylaxis
- xxv. Depression
- xxvi. Physiological
- xxvii. Therapeutic
- xxviii. untoward
- xxix. Cumulative effect
- xxx. Potentiation
- xxxi. Additive
- xxxii. Idiosyncrasy
- xxxiii. Habituation
- xxxiv. Therapeutic dose
- xxxv. Toxic dose
- xxxvi. Minimal dose
- xxxvii. Initiation
- xxxviii. Maximal dose
- xxxix. Side effect
- xl. Hypersensitivity
- hh. Differentiate among drug interactions. (P2)
- ii. Name at least eight safety considerations to remember when administering drugs. (P3)
- jj. Discuss the paramedic's role in the administration of medications. (P4)
- kk. Describe the approach, what information must be elicited from a patient, and what explanation should be given prior to the administration of any medication. (P5)
- ll. Recall the specific anatomy and physiology pertinent to pharmacology. (P6)
- mm. Discuss considerations for storing drugs. (P7)
- nn. Identify the definitions of the following drug classifications, the significance, and an example of each: (P8)
  - i. Anti-dysrhythmic
  - ii. Vagolytic
  - iii. Chronotropic
  - iv. Inotropic
  - v. Ophthalmic agents
  - vi. Antihistamine

- vii. Vasopressor
- viii. Narcotic
- ix. Anticonvulsant
- x. Alkalizing
- xi. Bronchodilator
- xii. Emetic
- xiii. Diuretic
- xiv. Analgesic
- xv. Oxytoxic
- xvi. Narcotic antagonist
- oo. List components of a drug by its classification. (P9)
- pp. Given a list of IV solutions, recall the osmotic effect of the solution when introduced into a patient. (P10)
- qq. Identify the general functions and actions of autonomic nerves and the two subdivisions and the actions of each subdivision. (P11)
- rr. Identify the locations of Alpha and Beta receptors. (P12)
- ss. Identify the actions of Alpha and Beta blockers and stimulants. (P13)
- tt. Define in writing the following terms: (P14)
  - i. Adrenergic
  - ii. Cholinergic
  - iii. Catecholamine
  - iv. Sympathomimetic
  - v. Synapse
  - vi. Receptor
  - vii. Stimulator/agonist
  - viii. Antagonist
  - ix. Blocker
  - x. Ganglion
  - xi. Vagolytic
- uu. Identify the actions, indications, contraindications, dosages, classification or type, interaction, side effects, complications, and preferred routes of administration of the following drugs: (D1-9)
  - i. Ventolin
  - ii. Alupent
  - iii. Heparin
  - iv. Activated Charcoal
  - v. Pitocin
  - vi. Potassium
  - vii. Atropine
  - viii. Lidocaine
  - ix. Epinephrine
  - x. Bretylium
  - xi. Verapamil
  - xii. Adenosine
  - xiii. Aminophylline
  - xiv. Dopamine
  - xv. Nitroglycerine
  - xvi. Lasix
  - xvii. Morphine
  - xviii. Demerol
  - xix. Terbutaline
  - xx. Benadryl
  - xxi. Dextrose
  - xxii. Valium

- xxiii. Vistaril
- xxiv. Aspirin
- xxv. Magnesium sulfate
- xxvi. Phenylephrine
- xxvii. Procainamide
- xxviii. Versed
- vv. Identify the general side effects and conditions for which the following prescriptions and non prescription medications are used: (D10)
  - i. Antibiotics
  - ii. Anticoagulants: Coumadin, Heparin
  - iii. Anticonvulsants: Dilantin
  - iv. Antidysrhythmics: Procainamide, Norpace, Quinidine
  - v. Anti-inflammatory: ASA, Acetaminophen, Prednisone, Motrin
  - vi. Antihistamines: Pyrobenzamine
  - vii. Antihypertensives: Aldomet, Catapres, Minipres, Diuretics, Reserpine
  - viii. Betablockers: Propranolol
  - ix. Bronchodilators: Theo-dur, Tedrol, Primatene, Bronkosol, Alupent
  - x. Calcium Blockers: Nifedipine
  - xi. Digitalis preparations
  - xii. Diuretics: Hydrochlorothiazide, Diazide
  - xiii. Hypoglycemics: Insulin, Diabinese, Tolinase, Orinase
- ww. Integrate pathophysiological principles of pharmacology with a given patient assessment. (O1)
- xx. Synthesize patient history and assessment and form a treatment plan. (O2)
- yy. Research a given home medication and present that information in written and oral form. (O3)
- zz. Actively participate in the instruction. (O4)
- 13. As a result of satisfactorily completing EMS 154:
  - a. Identify the components of the Basic Trauma Life Support trauma assessment, including correct sequence, criteria for interrupting the primary survey, and the indications for “load and go.”
  - b. Identify the normal ranges of vital signs for the infant, child, and adult, including blood pressure, pulse, respiration, pupil signs, skin signs, capillary refill and respiratory effort.
  - c. Identify the components and the method of obtaining the following mnemonics:
    - i. Provoke, Quality Radiation, Severity, Time (PQRST)
    - ii. Size of projectile, Proximity of the patient, Entrance wounds, Exit wounds, Deceleration injuries
    - iii. Personal and personnel safety, Environmental hazards, Number of Victims, Mechanism of injury, Additional resources needed, Need for extrication (PENMAN)
    - iv. Medications, Allergies, Doctor, Age, Medical history
    - v. Symptoms, Allergies, Medications, Past medical history
  - d. Demonstrate in writing, given patient scenarios, the ability to vary the information requested in the PQRST mnemonic with different patient problems and in different scenes.
  - e. Identify the pathophysiology, signs and symptoms, patient assessment, complications and prehospital management of:
    - i. Air embolism
    - ii. Decompression sickness

- iii. Acute pulmonary edema
- iv. Common marine animal stings
- v. Nitrogen narcosis
- vi. Shallow water blackout
- f. Identify the signs and symptoms, clinical presentation, patient assessment, special considerations, and prehospital management of bites and stings including:
  - i. Bee
  - ii. Black widow spider
  - iii. Brown spider
  - iv. Scorpion
  - v. Snake bites, poisonous and nonpoisonous
- g. Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i. Heat cramps
  - ii. Heat exhaustion
  - iii. Heat stroke
- h. Identify the predisposing factors of heat illness
- i. Identify the predisposing factors of hypothermia and frostbite
- j. Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i. Frostnip
  - ii. Superficial frostbite
  - iii. Deep frost bite
- k. Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i. Mild hypothermia
  - ii. Severe hypothermia
  - iii. Immersion hypothermia
- l. Identify the causative actions in hypothermia which may trigger ventricular fibrillation such as:
  - i. Physical exertion
  - ii. Insertion of an **spell out acronym** (OPA)
  - iii. Endotracheal intubation
  - iv. Respiratory alkalosis
  - v. Metabolic alkalosis
  - vi. Precordial thump
  - vii. Unnecessary cardiac resuscitation
  - viii. Sympathomimetic drugs
  - ix. Rapid external warming
  - x. Rough handling during lifting or transport
- m. Identify routes by which poisons enter the body
- n. Identify the specific signs and symptoms seen with overdose caused by:
  - i. Central nervous system depressants
  - ii. Central nervous system stimulants
- o. Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of patients who have ingested, inhaled, absorbed, insufflated or injected:
  - i. Acetaminophen
  - ii. Aspirin
  - iii. Caustic substances
  - iv. Central nervous system depressant drugs
  - v. Central nervous system stimulant drugs
  - vi. Narcotics

- vii. Organophosphates
- viii. Phencyclidine (PCP)
- ix. Tricyclics
- x. Phenothiazines
- xi. Hydrocarbons
- xii. Ethylene glycol
- xiii. Cyanide
- xiv. Poisonous plants
- xv. Carbon monoxide
- xvi. Acids and or alkali
- p. Identify the assessment questions to be asked in the case of poisoning or overdose.
- q. Identify the rationale for inducing or not inducing vomiting in the poisoned or overdosed patient
- r. Identify the rationale for not inducing vomiting in a tricyclic overdose who is awake and alert.
- s. Identify the criteria for using ipecac, activated charcoal, atropine, naloxone, calcium gluconate, dextrose, and diazepam in the poisoned or overdose patient.
- t. Identify the specific medical problems seen more in alcoholics than in the general population.
- u. Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i. Acute alcohol intoxication
  - ii. Alcohol withdrawal seizures
  - iii. Delirium tremens
- v. Define:
  - i. Threatened abortion
  - ii. Inevitable abortion
  - iii. Incomplete abortion
  - iv. Septic abortion
  - v. Missed abortion
  - vi. Retained placenta
  - vii. Gravida/para
  - viii. Uterus
  - ix. Vagina
  - x. Cervix
  - xi. Fundus
  - xii. Ovary
  - xiii. Ovum
  - xiv. Fallopian tube
  - xv. Perineum
  - xvi. Placenta
  - xvii. Umbilical cord
  - xviii. Amniotic sac/fluid
  - xix. Crowning
  - xx. Fetus
  - xxi. Fetal heart tones
  - xxii. Crowning
  - xxiii. Neonate
  - xxiv. APGAR
- w. Identify the parameters of the three stages of labor and the prehospital management of each.
- x. Identify the significance of:

- i. Blood mucous discharge (bloody show)
  - ii. Clear fluid discharge during labor
  - iii. Meconium in vertex presentations
- y. Identify the pertinent history to obtain from a woman in labor relative to the present pregnancy and labor and past pregnancy and delivery history
- z. Identify the differences in patient appearance during early labor versus active labor.
- aa. Identify the appearance of the perineum as delivery becomes imminent
- bb. Identify the sign/symptoms which accompany imminent birth
- cc. Identify the components of the APGAR score and when it is determined
- dd. Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i. Abnormal fetal presentations
  - ii. Breech
  - iii. Footling breech
  - iv. Abruptio placenta
  - v. Placenta previa
  - vi. Baby delivered with intact amniotic sac
  - vii. Cord around the neck
  - viii. Multiple births
  - ix. Premature births
  - x. Prolapsed cord
  - xi. Supine hypotension syndrome
  - xii. Pre-eclampsia/eclampsia (toxemia)
  - xiii. Post partum hemorrhage
- ee. Determine an accurate APGAR score when given descriptions of a newborn at delivery
- ff. Determine the correct course of action and correct medication intervention for newborn resuscitation when given newborn scenarios
- gg. Identify the importance of drying, wrapping, and stimulating a newborn
- hh. Identify the normal range of heart rate for a newborn
- ii. Identify the significance of meconium staining
- jj. Identify the actions for managing a depressed newborn
- kk. Identify the signs of fetal distress and determine course of action for management, given labor and delivery scenarios
- ll. Identify the components, significance, and parameters for care of the newborn including:
  - i. Administration of oxygen
  - ii. Airway suctioning
  - iii. Cord care
  - iv. Warming measures
- mm. Identify the effect of delivery and stress on the glucose level of the newborn
- nn. Identify the signs of placental separation
- oo. Discuss the prehospital procedure for delivery of the placenta
- pp. Define:
  - i. Acid
  - ii. Base
  - iii. Aerobic metabolism
  - iv. Anaerobic metabolism
  - v. Acidosis, respiratory and metabolic
  - vi. Alkalosis, respiratory and metabolic
  - vii. Buffer
  - viii. Cardiac output

- ix.** Diffusion
- x.** Electrolyte
- xi.** Filtrations
- xii.** Hematocrit
- xiii.** Hemoglobin
- xiv.** Hypertonic
- xv.** Hypotonic
- xvi.** Iatrogenic
- xvii.** Ion
- xviii.** Isotonic
- xix.** Metabolism
- xx.** Osmosis
- xxi.** Perfusion
- xxii.** Peripheral vascular resistance
- xxiii.** Plasma
- xxiv.** Semipermeable membrane
- xxv.** Shunting
- xxvi.** Starling's Law
- xxvii.** Stroke volume
- xxviii.** Volume replacement
- xxix.** Colloid
- xxx.** Crystalloid
- qq.** Identify the functions of the autonomic nerves in cardiovascular control to include alpha and beta receptors
- rr.** Identify the relationship of acid-base balance to homeostasis
- ss.** Identify the signs and symptoms of adequate and inadequate tissue perfusion
- tt.** Identify the definitions for shock, compensated shock, uncompensated shock, and irreversible shock
- uu.** Identify signs and symptoms of shock, early and late and relate them to compensatory mechanisms
- vv.** Identify the pathophysiological processes and specific signs in hypovolemic, cardiogenic, neurological, septic, and anaphylactic shock
- ww.** Identify the type of shock caused by:
  - i.** Anaphylaxis
  - ii.** Burns
  - iii.** Cardiac tamponade
  - iv.** Dehydration
  - v.** Dissecting aortic aneurysm
  - vi.** Dysrhythmias
  - vii.** Hemorrhage
  - viii.** Myocardial infarction
  - ix.** Overdose
  - x.** Pulmonary edema
  - xi.** Sepsis
  - xii.** Spinal injury
  - xiii.** Tension pneumothorax
  - xiv.** Vomiting and/or diarrhea
- xx.** Identify shock states and the physiology involved where distended neck veins may be observed
- yy.** Indicate the appropriate therapy for patients in shock
- zz.** Identify conditions which may result in anaerobic metabolism

- aaa.** Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of a patient with epistaxis
- bbb.** Identify the prehospital management of chemical, thermal and flash burns to the eyes
- ccc.** Identify definitions, pathophysiology, signs and symptoms, patient assessment, complications and prehospital management for:
  - i.** Acute glaucoma
  - ii.** Corneal abrasion
  - iii.** Hyphema
  - iv.** Central retinal artery occlusion
  - v.** Blow out fracture
  - vi.** Impaled object in the eye
  - vii.** Orbital fractures
- ddd.** Identify the life threatening complications associated with soft tissue injuries of the face and neck
- eee.** Identify the importance of and management techniques for airway management in a patient with facial fractures
- fff.** Identify the prehospital management of a patient with a lacerated eyelid or eyeball, or avulsion of the eye
- ggg.** Identify the physiological basis for changes in skin signs in the presence of inadequate perfusion
- hhh.** Identify the definitions and prehospital management for the following:
  - i.** Abrasion
  - ii.** Amputation
  - iii.** Contusion
  - iv.** Ecchymosis
  - v.** Hematoma
  - vi.** Laceration
  - vii.** Puncture
  - viii.** Avulsion
- iii.** Discuss the differences in terms of appearance, treatment, and physiologic affect between arterial and venous bleeding
- jjj.** Discuss the locations of the major pressure points that can be used to help control bleeding
- kkk.** Discuss the indications for and complications of using a tourniquet/constricting band
- lll.** Identify the procedure for managing impaled objects
- mmm.** Identify the prehospital management of contaminated wounds to include evisceration, open fractures, lacerations, avulsions and amputations
- nnn.** Identify the definition, pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i.** Closed fractures
  - ii.** Open fractures
  - iii.** Dislocations
  - iv.** Strain
  - v.** Sprain
- ooo.** Identify the complications specific to each of the following fractures:
  - i.** Clavicle
  - ii.** Elbow
  - iii.** Femur
  - iv.** Long bone
  - v.** Open

- vi. Pelvic
- ppp. Identify the indications and contraindications for the realignment of a fractured extremity in the prehospital setting
- qqq. Identify the parameters that must be assessed before and after immobilization
- rrr. Identify the appropriate care for an amputated part in the prehospital setting
- sss. Identify the definition, pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i. First degree burns
  - ii. Second degree burns
  - iii. Third degree burns
  - iv. Chemical burns
  - v. Electrical burns
  - vi. Radiation burns
- ttt. Identify the area and depth parameters for classifying a burn as critical
- uuu. Identify the importance of the following in determining the severity of a burn:
  - i. Agent of exposure
  - ii. Associated injuries
  - iii. Degree of burn
  - iv. Medical history of the patient
  - v. Percentage of body surface area burned (BSA)
  - vi. Site of burn
  - vii. Age of patient
- vvv. Identify the anatomical areas of the body which classify the burn as critical and give the rationale
- www. Identify the mechanism, pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of airway burns
- xxx. Identify the significance of a burn received in a closed area
- yyy. Identify the importance of transportation of an electrically burned patient to a medical facility
- zzz. Identify the prehospital management of burn-related wounds including:
  - i. Wounds
  - ii. Maintenance of body heat
  - iii. Administration of oral fluids to the burn patient
  - iv. Pain relief
  - v. Removal of rings and clothing
- aaaa. Demonstrate the ability to calculate BSA, determine body weight in kilograms and determine appropriate fluid replacement given the Parkland formula and the formula used in local protocol
- bbbb. Demonstrate the ability to determine BSA by using the Rule of Nines.
- cccc. Identify the prehospital management of:
  - i. Penetrating wounds
  - ii. Eviscerations
  - iii. Blunt trauma
- dddd. Discuss the reasons for rapid transport of a patient with abdominal trauma
- eeee. Identify the mechanism of injury, pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:

- i. Cardiac tamponade
- ii. Great vessel trauma
- iii. Myocardial contusion
- iv. Pneumothorax/hemothorax and tension pneumothorax
- v. Tracheobronchial injuries
- ffff.** Identify the rationale for withholding analgesics in a trauma patient
- gggg.** Identify the procedures utilized to manage an open chest wound or an impaled object in the chest
- hhhh.** Identify the mechanism of injury, pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i. Scalp lacerations
  - ii. Concussions
  - iii. Cerebral contusions
  - iv. Basal and depressed skull fractures
  - v. Epidural hematomas
  - vi. Subdural hematomas
- iiii. Identify the signs and symptoms of increased intracranial pressure
- jjjj.** Identify the rationale that the level of consciousness is the most sensitive indicator of cerebral function
- kkkk.** Identify the rationale for hyperoxygenating a symptomatic head injured patient
- llll.** Identify the significance of deteriorating neurological status following head trauma
- mmmm.** Identify the rationale for the use of an airway adjunct in the unconscious patient with suspected head or neck injury
- nnnn.** Identify the causes of shock in the head injured patient
- oooo.** Identify the concerns for the respiratory status of a patient with quadraplegia
- pppp.** Define:
  - i. Bronchospasm
  - ii. Rales
  - iii. Rhonci
  - iv. Stridor
  - v. Surfactant
  - vi. Respiratory acidosis
  - vii. Respiratory alkalosis
  - viii. Surfactant
  - ix. Respiratory failure
- qqqq.** Define and describe the following respiratory patterns:
  - i. Cheyne stokes
  - ii. Central neurogenic
  - iii. Kussmaul
  - iv. Hyperventilation
  - v. Agonal
- rrrr.** Identify the signs and symptoms of respiratory distress obtainable by inspection, palpation, and auscultation
- ssss.** Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
  - i. Acute pulmonary edema, cardiac and non-cardiac (high altitude)
  - ii. Drowning and near drowning
  - iii. Asthma
  - iv. Chronic obstructive pulmonary disease to include emphysema and chronic bronchitis

- v. Hyperventilation syndrome
- vi. Neurologic dysfunction
- vii. Pneumonia
- viii. Pulmonary embolism
- ix. Spontaneous pneumothorax
- x. Upper airway obstruction
- xi. Pickwickian syndrome
- tttt.** Identify the appropriate position for the assessment and transportation of a patient with dyspnea
- uuuu.** Identify the predisposing factors to congestive heart failure
- vvvv.** Identify the differences between right and left heart failure
- wwww.** Correlate the prognosis of the near drowning patient with time under water and water temperature
- xxxx.** Identify the concentration of oxygen deliverable by the following adjuncts:
  - i. Nasal cannula
  - ii. Simple face mask
  - iii. Non-rebreather mask
  - iv. Esophageal obturator airway
  - v. Endotracheal/nasotracheal tube
  - vi. Bag valve mask
  - vii. Demand valve
  - viii. Oropharyngeal airway
  - ix. Nasopharyngeal airway
- yyyy.** Identify the indications, contraindications, and complications of:
  - i. Nasal cannula
  - ii. Simple face mask
  - iii. Non-rebreather mask
  - iv. Esophageal/nasotracheal tube
  - v. Bag valve mask
  - vi. Demand valve
  - vii. Oropharyngeal airway
  - viii. Nasopharyngeal airway
- zzzz.** Identify the phases of the respiratory cycle when the following sounds are heard:
  - i. Rales
  - ii. Stridor
  - iii. Wheezes
- aaaaa.** Define:
  - i. Respiration
  - ii. Ventilation
  - iii. Tidal volume
  - iv. Minute volume
  - v. Dead space
  - vi. Shunt
  - vii. Hypoventilation/hyperventilation
  - viii. Atelectasis
  - ix.  $\text{FiO}_2$
  - x. Hypoxemia
  - xi. Hypercapnia
- bbbbb.** Identify the cause of a decrease in the minute ventilation and the resultant effects on blood gases
- ccccc.** Identify the difference between venous and arterial blood in terms of oxygen content and carbon dioxide content

- dddd.** Identify the conditions which result in hypercarbia and measures which will reduce the level of CO<sub>2</sub> to normal
- eeee.** Identify conditions which will cause hypoxemia
- ffff.** Discuss the treatment for hypoxemia
- gggg.** Discuss the common causes of respiratory arrest
- hhhh.** Define:
- i.** Anisocoria
  - ii.** Aphasia, expressive and receptive
  - iii.** Atherosclerosis
  - iv.** Aura
  - v.** Battle signs
  - vi.** Brainstem posturing to include
  - vii.** Decerebrate-extension
  - viii.** Decorticate-flexion
  - ix.** Contrecoup
  - x.** Embolus
  - xi.** Epilepsy
  - xii.** Hemiplegia
  - xiii.** Incontinence
  - xiv.** Nuchal rigidity
  - xv.** Nystagmus
  - xvi.** Occlusion
  - xvii.** Otorrhea
  - xviii.** Paralysis
  - xix.** Paraplegia
  - xx.** Paresis
  - xxi.** Paresthesia
  - xxii.** Post ictal
  - xxiii.** Priapism
  - xxiv.** Quadraplegia
  - xxv.** Raccoon eyes
  - xxvi.** Rhinorrhea
  - xxvii.** Seizure
  - xxviii.** Focal
  - xxix.** Grand mal
  - xxx.** Petit mal
  - xxxi.** Alcoholic
  - xxxii.** Stroke/cerebral vascular accident (CVA)
  - xxxiii.** Thrombosis
  - xxxiv.** Transient ischemic attack (TIA)
- iiii.** Identify the causes of altered level of consciousness (AEIOU-TIPS)
- jjjj.** Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
- i.** CVA
  - ii.** TIA
  - iii.** Coma of unknown etiology
  - iv.** Seizure
  - v.** Status epilepticus
  - vi.** Syncope
- kkkk.** Discuss the rationale for obtaining a blood sample on a patient with an altered level of consciousness prior to treatment in the prehospital setting
- llll.** Identify conditions which may mimic a CVA

- mmmmm.** Discuss the concerns in patient care of the patient with a CVA regarding airway, positioning and protection paralyzed extremities
- nnnnn.** Identify the implications, complications and prehospital management of status epilepticus
- ooooo.** Identify the rationale for the use of high flow O<sub>2</sub> on the actively seizing patient or the patient who is post ictal
- ppppp.** Identify the rationale for administering D50 and narcan to a post-ictal patient
- qqqqq.** Identify the pathophysiology, patient assessment, complications and prehospital management of alcoholic seizures and delirium tremens
- rrrrr.** Discuss the causative mechanisms of abdominal pain
- sssss.** Identify the definition and significance of:
- i. Cirrhosis
  - ii. Coffee ground emesis
  - iii. Esophageal varices
  - iv. Hematemesis
  - v. Melena
- ttttt.** Identify the indications for obtaining orthostatic vital signs, the parameters for positive signs, and appropriate intervention in the prehospital setting according to local protocols
- uuuuu.** Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital management of:
- i. Esophageal varices
  - ii. Abdominal aneurysm
  - iii. Appendicitis
  - iv. Cholecystitis
  - v. Ectopic pregnancy
  - vi. Urethral colic/renal calculus
  - vii. Pancreatitis
  - viii. Peptic ulcer
  - ix. Mesenteric ischemia
  - x. Diverticulitis
- vvvvv.** Identify common medical problems to which renal patients are susceptible
- wwwww.** Identify the pathophysiology, signs and symptoms, patient assessment, complications and prehospital management of patients with hypoglycemia and hyperglycemia
- xxxxx.** Identify the appropriate history to be obtained from a diabetic patient
- yyyyy.** Identify the rationale for obtaining a blood sample from a patient with diabetes, prior to administering D50
- zzzzz.** Identify the reasons for treating hypoglycemia promptly
- aaaaa.** Identify the rationale for the use of D50 in patients with a history of diabetes who have an altered level of consciousness
- bbbbb.** Discuss the criteria to be used in administering oral glucose preparations a hypoglycemic patient
- ccccc.** Define:
- i. Diabetes mellitus
  - ii. Diabetic coma
  - iii. Diabetic ketoacidosis
  - iv. Hyperosmolar non-ketotic coma
  - v. Hyperglycemia

- vi. Hypoglycemia
- vii. Insulin
- viii. Insulin shock
- dddddd.** Identify the pathophysiology, signs and symptoms, patient assessment, complications, and prehospital treatment for:
  - i. Angina pectoris
  - ii. Acute myocardial infarction
  - iii. Left heart failure
  - iv. Right heart failure
  - v. Cardiogenic shock
  - vi. Aortic aneurysm
  - vii. Hypertensive crisis
- eeeeee.** Identify the specific information to be obtained from a patient with complaints of chest pain and/or difficulty breathing
- fffff.** Identify the significance of the following in patients with chest pain or difficulty breathing:
  - i. Altered level of consciousness
  - ii. Vertigo or syncope
  - iii. Palpitations
  - iv. Cold, sweaty skin
  - v. Irregular pulse
  - vi. Rales or wheezes
  - vii. Right upper quadrant tenderness
  - viii. Pedal or sacral edema
  - ix. Delayed capillary refill
- gggggg.** Identify the therapeutic action, prehospital indications, contraindications, in patients with cardiac problems for:
  - i. Oxygen
  - ii. Morphine sulfate
  - iii. Magnesium sulfate
  - iv. Nitroglycerine
  - v. Aspirin
  - vi. Dopamine
  - vii. Furosemide
  - viii. Lidocaine
  - ix. Albuterol
- hhhhhh.** Identify the definitions, signs and symptoms and significance of the following:
  - i. Infiltration
  - ii. Hematoma
  - iii. Thrombus
  - iv. Thrombophlebitis
  - v. Site infection
  - vi. Cellulites
  - vii. Septicemia
  - viii. Air embolism
  - ix. Allergic reaction
  - x. Catheter embolus
- iiiiii.** Identify the acceptable sites for intramuscular and subcutaneous medication administration to include deltoid, gluteus maximus, vastus lateralis and abdomen
- jjjjj.** Identify the components and significance of the five patient rights, plus allergies

<b>kkkkkk.</b>	Identify steps to be taken to reduce the occurrence of medication administration errors
<b>llllll.</b>	Identify the flow rates delivered by various intravenous and blood tubings and how the drip factor is labeled on the tubing containers and tubing
<b>mmmmmm.</b>	Identify the indications for the use of micro, macro and blood tubing in the prehospital setting
<b>nnnnnn.</b>	Demonstrate the ability to calculate drip rates and drug dosages given calculation problems
<b>oooooo.</b>	Identify the START method of triaging patients
<b>pppppp.</b>	Identify the communication system requirements at a mass casualty incident including the use of the system to direct rescuers and process information for decision making
<b>qqqqqq.</b>	Identify the importance of plans and procedures in responding to a mass casualty incident
<b>rrrrrr.</b>	Identify the need for controlling and organizing responding rescuers at a mass casualty incident
<b>ssssss.</b>	Identify who becomes the incident commander and how they are identified
<b>tttttt.</b>	Discuss the responsibilities of the incident commander
<b>uuuuuu.</b>	Identify the appropriate position for transport vehicles
<b>vvvvvv.</b>	Identify the parameters for selecting the areas for triage and staging
<b>wwwwww.</b>	Demonstrate the ability to determine the priorities for evacuating casualties from the scene, given patient information and injuries
<b>xxxxxx.</b>	Discuss the need, method and requirements for triage tagging at a mass casualty
<b>yyyyyy.</b>	Identify the definition of body substance isolation
<b>zzzzzz.</b>	Discuss the types of immunizations recommended for prehospital workers.
<b>aaaaaaa.</b>	Define:
<b>i.</b>	Carrier
<b>ii.</b>	Communicable period
<b>iii.</b>	Incubation period and reservoir
<b>bbbbbbb.</b>	Identify the pathophysiology, mode of transmission, signs and symptoms, patient assessment, complications and prehospital management of:
<b>i.</b>	Acquired Immune Deficiency Syndrome/HIV:
<b>ii.</b>	Tuberculosis
<b>iii.</b>	Hepatitis A and B
<b>iv.</b>	Meningitis
<b>v.</b>	Scabies and lice
<b>vi.</b>	Measles
<b>vii.</b>	Mumps
<b>viii.</b>	Gonorrhea, syphilis, chlamydia
<b>ccccccc.</b>	Identify the indications, contraindications, and complications of needle thoracostomy
<b>ddddddd.</b>	Identify the appropriate site for needle thoracostomy
<b>eeeeeee.</b>	Identify the indications, contraindications, and complications of nasogastric/orogastric tube insertion
<b>ffffff.</b>	Discuss the management of a tube inadvertently placed in the trachea
<b>ggggggg.</b>	Identify the methods for checking for correct tube placement

- hhhhhhh.** Identify the indications, contraindications and complications of intraosseous insertion and infusion
- iiiiiii.** Identify the exact parameters for determining the site
- jjjjjjj.** Identify the medications which may be given through the intraosseous insertion and infusion
- kkkkkkk.** Identify the correct method for securing the needle and infusion equipment
- lllllll.** Identify the causes of disturbed behavior to include situational, organic and intrapsychic
- mmmmmmm.** Discuss the productive and less productive approaches to a disturbed patient with the rationale for each
- nnnnnnn.** Identify the signs and symptoms, characteristics, impaired components of the mental status examination, and prehospital management in:
- i.** Psychosis
  - ii.** Depression
  - iii.** Mania
  - iv.** Panic disorder
  - v.** Organic brain syndrome
  - vi.** Disorganization or disorientation
  - vii.** Suicidal patient
  - viii.** Suspected substance abuse
  - ix.** Hostile patient
  - x.** Battered patient
  - xi.** Anxiety reaction
  - xii.** Grief stricken patient
- oooooooo.** Identify the factors which increase the risk of suicide
- ppppppp.** Identify the warning signs of impending violent behavior
- qqqqqqq.** Identify the requirements for legal detention to include who may declare the necessity of a 5150 hold and who may write one
- rrrrrrr.** Identify appropriate methods of transporting a patient with a behavioral emergency to include the use of restraints
- sssssss.** Discuss the appropriate and inappropriate methods of restraining patients
- ttttttt.** Identify the signs of dehydration in the elderly including:
- i.** Dry tongue
  - ii.** Longitudinal furrows in the tongue
  - iii.** Dry mucous membranes
  - iv.** Weak upper body musculature
  - v.** Confusion
  - vi.** Difficulty in speech
  - vii.** Sunken eyes
- uuuuuuu.** Identify the atypical clinical situations which demand knowledge and use of the geriatric awareness factor, including:
- i.** Myocardial infarctions
  - ii.** Falls
  - iii.** Adverse drug reactions
  - iv.** Pulmonary embolism
  - v.** Syncope and dizziness
  - vi.** The acute abdomen
  - vii.** Masked endocrine disorders
  - viii.** Response to trauma

- vvvvvvv.** Identify the definition of child abuse, child neglect, emotional abuse/depravation and sexual abuse
- wwwwwww.** Identify the signs and symptoms of child abuse, child neglect, emotional abuse/depravation, sexual abuse and failure to thrive
- xxxxxxx.** Discuss the penal code which mandates the report of suspected child neglect or abuse by health care providers
- yyyyyyy.** Identify the definition and the location of the following:
- i.** Base hospital
  - ii.** Receiving hospital
  - iii.** Specialty centers
  - iv.** Trauma
  - v.** Level I
  - vi.** Level II
  - vii.** Level III
  - viii.** Burn
  - ix.** Neonate and pediatric
  - x.** Psychiatric
  - xi.** Prehospital medical destination policy
  - xii.** Ambulance diversion policy
- zzzzzzz.** Identify from San Bernardino and Riverside county guidelines, the parameters of the following protocols; and given patient information/scenarios, interpret the information given in order to deliver appropriate patient care in San Bernardino and Riverside Counties:
- i.** Shortness of breath
  - ii.** Shock (non-traumatic)
  - iii.** Altered level of consciousness
  - iv.** Seizures
  - v.** Poisonings
  - vi.** Acute allergic reactions
  - vii.** Behavioral disorders
  - viii.** Chest pain
  - ix.** Adult cardiac emergencies
  - x.** Other cardiac dysrhythmias
  - xi.** Non-traumatic hypertensive crisis
  - xii.** Paroxysmal supraventricular tachycardia
  - xiii.** Bradycardia
  - xiv.** Adult cardiac arrest
  - xv.** Pediatric cardiac emergencies
  - xvi.** ventricular fibrillation/pulseless
  - xvii.** ventricular tachycardia
  - xviii.** asystole
  - xix.** electromechanical disassociation
  - xx.** supraventricular tachycardia
  - xxi.** bradycardia
  - xxii.** adult and pediatric trauma
  - xxiii.** traumatic cardiopulmonary arrest
  - xxiv.** Glasgow coma scale operational definition
  - xxv.** pediatric trauma shock/hypotension
  - xxvi.** assessment guidelines
  - xxvii.** environmental emergencies
  - xxviii.** toxic inhalations
  - xxix.** burns

- xxx. hypothermia-mild/severe
- xxxi. hyperthermia
- xxxii. obstetrical/neonatal emergencies
- xxxiii. imminent delivery
- xxxiv. pregnancy and/or birth complications
- xxxv. drugs used in resuscitation of the newborn patient
- xxxvi. neonatal resuscitation
- xxxvii. mci/hazmat
- xxxviii. multi-casualty incident operational
- xxxix. procedure
  - xl. hazardous materials incidents
  - xli. transfer of patients
  - xl.ii. monitoring of patients with thoracostomy tubes
  - xl.iii. interfacility transport-nurse staffed ALS unit
  - xl.iiii. ALS procedures/medications allowed prior to base hospital contact
  - xl.v. ALS procedures/medications requiring base hospital contact prior
  - xl.vi. Adult allergic reaction – anaphylaxis
  - xl.vii. Adult non-traumatic altered level of consciousness
  - xl.viii. Adult cardiac arrest
  - xl.ix. Adult chest pain
    - I. Adult dysrhythmias
    - ii. Adult respiratory distress
    - lii. Adult shock
    - liii. Pediatric bradycardia
    - liv. Pediatric allergic reaction – anaphylaxis
    - lv. Pediatric non-traumatic altered level of consciousness
    - lvi. Pediatric respiratory distress
    - lvii. Pediatric shock
    - lviii. Pediatric tachycardia
    - lix. Neonatal resuscitation
    - lx. Environmental emergencies
    - lxi. Poisonings
    - lxii. Trauma
- aaaaaaaa. Identify and apply, given patient scenarios, special considerations in the assessment of the following:
  - i. Infant
  - ii. Toddler
  - iii. School age
  - iv. Adolescent
- bbbbbbbb. Identify the components and parameters and apply the pediatric Glasgow Coma Scale
- cccccccc. Identify the methods of determining perfusion in the neonate, infant and toddler
- dddddddd. Identify the signs of foreign body aspiration in the pediatric age group including:
  - i. Stridor
  - ii. Cyanosis
  - iii. Respiratory arrest
- eeeeeeee. Identify the pathophysiology, signs and symptoms, pediatric assessment, complications and prehospital management of respiratory distress for:
  - i. Allergic reactions/anaphylaxis

- ii. Asthma/bronchitis/bronchiolitis
- iii. Epiglottitis
- iv. Foreign body aspiration
- v. Laryngotracheobronchitis (croup)
- vi. Pneumonia
- ffffff.** Identify the threat to life associated with epiglottitis and how this threat may be minimized
- gggggggg.** Identify the pathophysiology, signs and symptoms, pediatric assessment, complications and prehospital management of near drowning, including the importance of making base station contact and transporting all near drowning victims
- hhhhhhh.** Identify the rationale for initiating cardiopulmonary resuscitation (CPR) on all apneic and pulseless near drowning victims without consideration for submersion time
- iiiiiii.** Identify the common etiologies of pediatric cardiac arrest
- jjjjjjj.** Identify the method of determining defibrillator paddle size, placement, and energy level for infants and children
- kkkkkkk.** Identify the definition of Sudden Infant Death Syndrome (SIDS) and the age group most affected
- lllllll.** Identify the pathophysiology, signs and symptoms, pediatric assessment, complications, and prehospital management of:
  - i. Altered level of consciousness
  - ii. Common communicable diseases
  - iii. Meningitis
  - iv. Seizures
  - v. Poisoning
  - vi. Acetaminophen
  - vii. Aspirin (salicylate)
  - viii. Opiates
  - ix. Iron ingestions
  - x. Ingestion of foreign substances
  - xi. Petroleum products, hydrocarbons
  - xii. Castor beans
  - xiii. Oleander leaf
  - xiv. Corrosives
  - xv. Home mixed cleaning agents
  - xvi. Mushrooms
  - xvii. Alcohols
  - xviii. Button batteries
  - xix. Corrosives
  - xx. Organophosphates
- mmmmmmm.** Identify the most common cause of seizures in infants and children
- nnnnnnn.** Identify causes of seizures in infants and children
- ooooooo.** Identify the prehospital management of the pediatric patient with seizures
- ppppppp.** Identify the pathophysiology, signs and symptoms, pediatric assessment, complications and prehospital management of:
  - i. Fever
  - ii. Dehydration
  - iii. Shock

- qqqqqqqq.** Identify the pathophysiology, signs and symptoms, pediatric assessment, complications, and prehospital management of a pediatric trauma victim including:
  - i.** Head
  - ii.** Neck
  - iii.** Chest
  - iv.** Blunt abdominal trauma
  - v.** Seat belt syndrome
- rrrrrrrr.** Identify the pathophysiology, signs and symptoms, pediatric assessment, complications, and prehospital management of a victim of child abuse including:
  - i.** Recognition
  - ii.** Document
  - iii.** Behaviors
  - iv.** Parent(s)

- 14.** As a result of satisfactorily completing EMS 155:
- a.** Define medical control.
  - b.** Describe physician responsibility for medical control, both on-line and off-line.
  - c.** Describe the benefits of EMT-Paramedic (EMT-P) follow-up on a patient condition, diagnosis, and retrospective review of prehospital care.
  - d.** Discuss replacement of equipment and supplies.
  - e.** Demonstrate clean up and disinfecting all advanced life support (ALS) supplies and equipment.
  - f.** Discuss the varying philosophies between the management of medical patients and trauma patients in the prehospital environment.
  - g.** Demonstrate the priorities of assessment and management based on threat to life conditions.
  - h.** Describe the problems an EMT-P might encounter in a hostile situation and demonstrate the mechanisms of management of a hostile situation or scene.
  - i.** Demonstrate the priorities of assessment and management based on threat to life conditions.
  - j.** Discuss the EMT-P's initial responsibilities when arriving on the scene.
  - k.** Demonstrate the EMT-P's initial responsibilities when arriving on the scene. (PENMAN)
  - l.** Describe the various types of personal protective equipment available to the EMT-P.
  - m.** Demonstrate the correct use of personal protective equipment when given various patient situations and various patient presenting signs and symptoms.
  - n.** Describe how the primary survey assesses direct threats to the delivery of oxygen to the tissues.
  - o.** Demonstrate a primary survey.
  - p.** Describe how the secondary survey assesses indirect threats to the delivery of oxygen to the tissues.
  - q.** Demonstrate a complete secondary survey.
  - r.** Demonstrate the ability to obtain accurate diagnostic signs, including the following: palpated blood pressure within 10mmHg, auscultated blood pressure within 6mmHg, radial/brachial pulse within 8 beats per minute, respirations within 2 per minute, correct pupil size and reaction, determine level of consciousness, and chest auscultation.
  - s.** Demonstrate the mechanisms of evaluating the effectiveness of perfusion, including pulse, skin color, and capillary refill.

- t. Demonstrate a neurological examination (level of consciousness) using the Glasgow Coma Scale.
- u. Describe the reasons for exposing the patient's body for total evaluation and methods for completing the procedure while maintaining patient modesty and comfort.
- v. Demonstrate the assessment of the head, neck, thorax, abdomen, extremities and nervous system.
- w. Describe the trauma score, define its usefulness and demonstrate how it is accomplished.
- x. Discuss the important components that must be identified in taking a patient history.
- y. Demonstrate obtaining a complete patient history given various patient scenarios.
- z. Describe the methods available to the EMT-P for airway management according to local protocol including procedures prior to contact and Radio Communication Failure.
- aa. Demonstrate the basic and advanced management techniques for an obstructed airway on an infant, child, and adult trauma and medical patients, according to American Heart Association guidelines.
- bb. Demonstrate how the cervical spine is protected throughout all the airway maneuvers.
- cc. Describe mouth to mask ventilation and explain its benefits and limitations.
- dd. Discuss the bag-valve-mask, its benefits and limitations.
- ee. Demonstrate the techniques for evaluating the effectiveness of ventilations.
- ff. State the indications, contraindications, and continued monitoring of a multi-lumen airway device.
- gg. Discuss the benefits and limitations of ventilation with a multi-lumen airway device.
- hh. Demonstrate the procedure for insertion and removal of a multi-lumen airway device.
- ii. Discuss the benefits, limitations, and complications of ventilation with an endotracheal tube.
- jj. Describe the equipment and method of suctioning the airway, pharynx, and endotracheal tube.
- kk. State the indications, contraindications, complications and continued monitoring of an endotracheal tube.
- ll. Demonstrate the procedure for intubation, extubation and securing of an endotracheal tube on the infant, child, adult, medical and trauma patient, including both oral and nasal routes.
- mm. Demonstrate hemorrhage control.
- nn. Describe which laboratory studies are drawn in the field when the IV is started and their usefulness.
- oo. Describe how a patient is packaged and stabilized for transport to the hospital including airway ventilation, IV fluids, pneumatic anti shock garment, fracture stabilization, bandaging and spinal immobilization.
- pp. Describe how the patient is immobilized to the backboard.
- qq. Describe how the patient is immobilized to the stretcher and to the ambulance.
- rr. Demonstrate spinal immobilization.
- ss. Demonstrate spinal immobilization and extrication using a **spell out acronym** (KED) device.
- tt. Demonstrate helmet removal.

- uu.** Describe how the spinal immobilized patient is monitored enroute to the hospital.
- vv.** Demonstrate the completion of a run report.
- ww.** Demonstrate the mechanisms of continued evaluation of the patient enroute to the hospital.
- xx.** Perform a rapid assessment of a patient to identify priorities for care.
- yy.** Demonstrate the assessment of the head, neck, thorax, abdomen, extremities, and neurological exam.
- zz.** Demonstrate effective mouth-to-mask ventilations.
- aaa.** Demonstrate effective bag valve mask ventilations via a mask, **spell out acronym** (ET) or multi-lumen airway device.
- bbb.** Demonstrate effective cardiopulmonary resuscitation.
- ccc.** Demonstrate the manual methods of airway management.
- ddd.** Demonstrate the methods of management of an obstructed airway using ALS equipment.
- eee.** Demonstrate the use of various types of portable and fixed suction devices.
- fff.** Discuss indications and contraindications of endotracheal intubation.
- ggg.** Discuss indications, contraindications, and correct landmarks for needle cricothyrotomy.
- hhh.** Discuss alternatives to endotracheal intubation.
- iii.** Demonstrate methods of assuring and maintaining correct placement of an ET tube.
- jjj.** Demonstrate ventilation of an ET with a bag valve mask.
- kkk.** Demonstrate placement of an ET tube within 20 seconds on medical and trauma patients including oral and nasal routes.
- lll.** Demonstrate re-ventilation for missed intubation.
- mmm.** Discuss the role of preload in improving cardiac output.
- nnn.** Discuss afterload (systemic vascular resistance or SVR), the relationship of diastolic pressure to the SVR and the effect of diastolic pressure on coronary circulation.
- ooo.** Demonstrate the evaluation of the patient's perfusion status, based on physical observations within the primary survey, including pulse, skin, temperature, and capillary refill.
- ppp.** Discuss the relationship of the neurological exam to the evaluation of hypoperfusion and oxygenation.
- qqq.** Describe the information provided by the following in a physical examination: pulse, blood pressure, diastolic pressure, systolic pressure, skin color, appearance, temperature and respiration.
- rrr.** Describe the beneficial and detrimental effects of the Pneumatic Anti-Shock Garment.
- sss.** Describe the indications and contraindications for the Pneumatic Anti-Shock Garment.
- ttt.** Discuss fluid replacement, the types of fluid that are available for prehospital care, and the benefits and detrimental effects of each.
- uuu.** Discuss how fluid replacement is monitored and controlled.
- vvv.** Demonstrate the application, inflation, and deflation of the Pneumatic Anti-Shock Garment.
- www.** Given a desired dose and concentration of a drug, calculate the volume of the drug to be administered.
- xxx.** Demonstrate the conversion of various weights from pounds to kilograms.
- yyy.** Given the weight of a patient in pounds and a drug in milligrams per kilogram, calculate the appropriate drug dosage for the patient.

- zzz.** Given a rate of infusion for an IV fluid, determine the number of micro and/or macro drips per minute.
- aaaa.** Identify and describe local guidelines for drug administration.
- bbbb.** Describe the different types and sizes of syringes and needles and the advantages and disadvantages of each.
- cccc.** Demonstrate the proper approach and explanation that should be given to a patient prior to the administration of a medication.
- dddd.** State what information should be elicited from a patient prior to administration of a medication.
- eeee.** Withdraw a given amount of solution, given the dose, from an ampule or vial.
- ffff.** Assemble a prepackaged syringe.
- gggg.** Assemble a nebulized medication treatment.
- hhhh.** Perform an IV push and inject a specified dose of medication into an already established IV line.
- iiii.** Perform subcutaneous and intramuscular injections.
- jjjj.** Demonstrate adding the correct amount of medication to a given IV solution and infuse the medication at a specific rate via an IV piggyback set-up.
- kkkk.** Identify and describe local guidelines for intraosseous insertion and maintenance.
- llll.** Demonstrate intraosseous insertion, securing, and continued monitoring.
- mmmm.** Discuss the method for giving a drug by the rectal route.
- nnnn.** Discuss the method for giving a drug via the sublingual injection, sublingual absorption, or transmucosally.
- oooo.** Demonstrate the prehospital management of a pneumothorax, tension pneumothorax, and an open pneumothorax.
- pppp.** Demonstrate the management of a flail chest.
- qqqq.** Describe the pathophysiology of a flail chest.
- rrrr.** Describe a pulmonary contusion and its prehospital significance and management.
- ssss.** Describe cardiac tamponade based on anatomy, physiology, pathophysiology and management.
- tttt.** Demonstrate the need/non-need of prehospital management of a cardiac tamponade.
- uuuu.** Describe cardiac contusion, including anatomy, pathophysiology, methods of assessment, significance of dysrhythmias that occur and its management.
- vvvv.** Demonstrate the abdominal examination and the significance of the abdominal pathology in the prehospital phase.
- wwww.** Demonstrate the assessment of the abdomen.
- xxxx.** Demonstrate the management of extremity injuries, both upper and lower.
- yyyy.** Demonstrate the application of a traction splint.
- zzzz.** Describe the management of open and closed fractures.
- aaaaa.** Demonstrate the management of dislocations, explaining which should be reduced in the prehospital setting, which should not, and why.
- bbbbb.** Demonstrate the management of lacerations.
- ccccc.** Describe the various types of splints which can be used for the immobilization of fractures and list the advantages and disadvantages for each.
- ddddd.** Demonstrate the management of pelvic fractures.

- eeeeee.** Describe appropriate transportation of a patient to a hospital.
- fffff.** Demonstrate accurate communication with the hospital.
- ggggg.** Describe the procedure for the EMT-P to physician communication, the steps and the important information included in each step, and the priority in each of the steps.
- hhhhh.** Demonstrate insertion of an ET tube in the trauma adult and pediatric patient.
- iiiiii.** Demonstrate insertion of an ET tube in the non-trauma adult and pediatric patient.
- jjjjj.** Identify specific observation and physical findings to be evaluated in the patient with a respiratory complaint.
- kkkkk.** Demonstrate the techniques of inspection, auscultation, and palpation of the chest.
- lllll.** Demonstrate the technique of direct laryngoscopy on adult and pediatric medical and trauma patients.
- mmmmm.** Demonstrate the upper airway obstruction protocol according to American Heart Association standards.
- nnnnn.** Demonstrate the inspection, auscultation and palpation in examining the thorax.
- ooooo.** Identify the following abnormal lung sounds: stridor, wheezes, rales, rhonci.
- ppppp.** Demonstrate the ability to obtain an appropriate history when evaluating patient with respiratory complaints.
- qqqqq.** Demonstrate the ability to perform an appropriate assessment when evaluating patients with respiratory complaints.
- rrrrr.** Describe those questions to be asked during history taking for each of the common cardiac chief complaints.
- sssss.** Describe the indications for use of synchronized cardioversion.
- ttttt.** Describe energy recommendations for defibrillation of adult and pediatric patients.
- uuuuu.** Demonstrate the correct procedure for obtaining a history and performing a physical exam for cardiac related problems.
- vvvvv.** Demonstrate on an adult mannequin, the techniques for single and two-person CPR according to American Heart Association standards.
- wwwww.** Demonstrate on an infant mannequin, the technique for infant CPR according to American Heart Association standards.
- xxxxx.** Demonstrate on a child mannequin, the technique for child CPR according to American Heart Association standards.
- yyyyy.** Demonstrate a proper application of electrocardiogram (ECG) chest electrodes and obtain a sample Lead II, MCL 1, or MCL 6 rhythm strip.
- zzzzz.** Demonstrate the ability to correctly identify the following dynamic cardiac rhythms: regular sinus rhythms, sinus rhythm with **spell out acronym** (PVC), sinus bradycardia, sinus tachycardia, atrial flutter, atrial fibrillation, supraventricular tachycardia, first degree heart block, second degree heart blocks, third degree heart block, ventricular tachycardias, ventricular fibrillation and aystole.
- aaaaaa.** Demonstrate the ability to identify the cardiac rhythm and the indicated medical intervention required for a given patient according to American Heart Association guidelines.
- bbbbbb.** Demonstrate the recognition and treatment of patient presenting clinical information and signs and symptoms and determine the

	appropriate therapeutic interventions based on the assessment and integration of therapies.
<b>cccccc.</b>	Demonstrate the proper use of the defibrillator paddle electrodes to obtain a sample Lead II rhythm strip.
<b>dddddd.</b>	Demonstrate how to properly assess the cause of poor ECG tracing.
<b>eeeeee.</b>	Demonstrate the proper application of rotating tourniquets.
<b>fffff.</b>	Demonstrate the proper technique for administering a precordial thump.
<b>gggggg.</b>	Demonstrate correct operation of a monitor-defibrillator to perform defibrillation on an adult and infant.
<b>hhhhh.</b>	Demonstrate the correct technique for performing synchronized cardioversion.
<b>iiiiii.</b>	Demonstrate on a mannequin the proper procedure for patient assessment and performance of a Valsalva's maneuver.
<b>jjjjj.</b>	Demonstrate the correct technique for performing non-invasive (external) cardiac pacing.
<b>kkkkk.</b>	Demonstrate the ability to perform an appropriate assessment when evaluating patients with nervous system disorders.
<b>lllll.</b>	Demonstrate a complete prehospital neurological examination.
<b>mmmmm.</b>	Demonstrate the ability to appropriately evaluate a patient utilizing the Glasgow Coma Scale.
<b>nnnnn.</b>	Demonstrate the ability to appropriately manage a patient with a nervous system disorder.
<b>ooooo.</b>	Discuss the specific questions you would ask to obtain a history from a patient with abdominal pain.
<b>ppppp.</b>	Describe the assessment and management of anaphylaxis.
<b>qqqqq.</b>	Demonstrate the ability to take a relevant history from the patient with anaphylaxis.
<b>rrrrr.</b>	Demonstrate competency in effective assessment and management of the patient with anaphylaxis, including drug therapy.
<b>sssss.</b>	Describe the aspects of patient history that are relevant in the management of a patient with ingested poison.
<b>ttttt.</b>	Describe the general principles of management of a patient with ingested poison.
<b>uuuuu.</b>	Discuss the factors affecting the decision to induce vomiting in a patient with ingested poison.
<b>vvvvv.</b>	Describe the general principles of management of a patient with inhaled poison.
<b>wwwww.</b>	Describe the general principles of management of a patient with injected poison.
<b>xxxxx.</b>	Describe the general principles of management of a patient with a surface absorbed poison.
<b>yyyyy.</b>	Describe the general principles of management of a patient with an overdose.
<b>zzzzz.</b>	Discuss how infectious diseases are transmitted.
<b>aaaaa.</b>	Identify the pertinent history related questions to be asked when evaluating the patient with tuberculosis.
<b>bbbbbb.</b>	Discuss signs and symptoms related to the patient with tuberculosis.
<b>cccccc.</b>	Discuss assessment and demonstrate the management of the patient with tuberculosis.
<b>dddddd.</b>	Discuss signs and symptoms related to the patient with hepatitis.

<b>eeeeeee.</b>	Discuss assessment and demonstrate the management of the patient with hepatitis.
<b>ffffff.</b>	Discuss signs and symptoms related to the patient with meningitis.
<b>ggggggg.</b>	Discuss assessment and demonstrate the management of the patient with meningitis.
<b>hhhhhhh.</b>	Discuss assessment, patient confidentiality laws and demonstrate the management of the patient with a sexually transmitted disease.
<b>iiiiiii.</b>	Discuss assessment and demonstrate the management of the patient with scabies/lice.
<b>jjjjjjj.</b>	Discuss follow-up procedures after a potential exposure to an infectious disease.
<b>kkkkkkk.</b>	Demonstrate the ability to take a history from the patient with an infectious disease.
<b>lllllll.</b>	Demonstrate the ability to perform a complete physical assessment on the patient with an infectious disease.
<b>mmmmmmm.</b>	Demonstrate the application of a constricting band.
<b>nnnnnnn.</b>	Demonstrate the procedure for applying a sling and swathe.
<b>ooooooo.</b>	Demonstrate the ability to control severe bleeding on an extremity.
<b>ppppppp.</b>	Demonstrate basic bandaging techniques.
<b>qqqqqqq.</b>	Demonstrate, using the Rule of Nines, the ability to assess the percent of body surface burned on a simulated patient.
<b>rrrrrrr.</b>	Demonstrate the steps in the field management of cold and heat emergencies.
<b>sssssss.</b>	Describe the assessment and demonstrate the management of Sudden Infant Death Syndrome (SIDS), elder abuse, domestic violence cases, and sexual assault cases.
<b>ttttttt.</b>	Demonstrate the management of the victim, the family and the scene of a child abuse, domestic violence, elder abuse, and sexual assault case.
<b>uuuuuuu.</b>	Describe the pathophysiology, assessment and demonstrate the management of dehydration in the pediatric patient.
<b>vvvvvvv.</b>	Identify special details of history that should be obtained in the obstetric patient.
<b>wwwwwww.</b>	Describe the pathophysiology, assessment, and demonstrate the management of the patient who has had or is having an abortion.
<b>xxxxxxx.</b>	Describe the pathophysiology, assessment, and demonstrate the management of the following: ectopic pregnancy, abruptio placenta, placenta previa, eclampsia and pre-eclampsia.
<b>yyyyyyy.</b>	Demonstrate the ability to properly assess the patient with a possible gynecological disorder.
<b>zzzzzzz.</b>	Demonstrate the ability to properly assess the pregnant patient.
<b>aaaaaaaa.</b>	Demonstrate the ability to perform an appropriate assessment when evaluating an obstetric patient.
<b>bbbbbbb.</b>	Demonstrate the technique of fundal massage.
<b>ccccccc.</b>	Demonstrate the ability to use a bulb syringe and DeLee suction and meconium aspirators.
<b>ddddddd.</b>	Demonstrate the ability to clamp and cut an umbilical cord.
<b>eeeeeee.</b>	Demonstrate the ability to calculate an accurate APGAR score.
<b>ffffff.</b>	Demonstrate the ability to appropriately manage a newborn infant.

<b>gggggggg.</b>	Demonstrate cooling measures for infants, children, and adults.
<b>hhhhhhhh.</b>	Demonstrate correct procedure for reporting the patient assessment and procedures to the Base Station Hospital.
<b>iiiiiii.</b>	Demonstrate sterile technique.
<b>jjjjjjj.</b>	Demonstrate the technique for inserting an oral/nasal gastric tube.
<b>kkkkkkkk.</b>	Demonstrate the securing and monitoring of an oral/nasal gastric tube.
<b>lllllll.</b>	Recall the indications, contraindications and precautions for an oral/nasal gastric tube.
<b>mmmmmmm.</b>	Identify and demonstrate the technique for inserting a gastric tube on a patient with a multi-lumen airway device and/or an endotracheal tube in place.
<b>nnnnnnnn.</b>	Demonstrate the technique for application of restraints.
<b>oooooooo.</b>	Demonstrate the proper procedure for a needle thoracostomy.
<b>pppppppp.</b>	Demonstrate the application of a heparin lock or a saline lock to an existing catheter.
<b>qqqqqqqq.</b>	Demonstrate medication administration through pre-existing vascular sites including Broviac, Hickman, Groshong and winged needles for dialysis.
<b>rrrrrrrr.</b>	Demonstrate behaviors and skills performance consistent with standard evaluation ratings.

**B. Recommended Skills:** None

**13. Course Objectives:**

**Upon satisfactory completion of the course, students will be able to:**

- A.** Define the terms inspection, palpation, percussion, and auscultation.
- B.** Describe the techniques of inspection, palpation, percussion, and auscultation.
- C.** Describe the evaluation of mental status.
- D.** Evaluate the importance of a general survey.
- E.** Describe the examination of skin, hair, and nails.
- F.** Differentiate normal and abnormal findings of the assessment of the skin.
- G.** Distinguish the importance of abnormal findings of the assessment of the skin.
- H.** Describe the examination of the head and neck.
- I.** Differentiate normal and abnormal findings of the scalp examination.
- J.** Describe the normal and abnormal assessment findings of the skull.
- K.** Describe the assessment of visual acuity.
- L.** Describe the examination of the eyes.
- M.** Distinguish between normal and abnormal assessment findings of the eyes.
- N.** Describe the examination of the ears.
- O.** Differentiate normal and abnormal findings of the ears.
- P.** Describe the examination of the nose.
- Q.** Differentiate normal and abnormal findings of the nose.
- R.** Describe the examination of mouth and pharynx.
- S.** Differentiate normal and abnormal assessment findings of the mouth and pharynx.
- T.** Describe the examination of the neck.
- U.** Differentiate normal and abnormal findings of the neck.
- V.** Describe the survey of the thorax and respiration.
- W.** Describe the examination of the posterior chest.

- X.** Describe the percussion of the chest.
- Y.** Differentiate the percussion notes and their characteristics.
- Z.** Differentiate the characteristics of breath sounds.
- AA.** Describe the examination of the anterior chest.
- BB.** Differentiate normal and abnormal assessment findings of the chest examination.
- CC.** Describe special examination techniques related to the assessment of the chest.
- DD.** Describe the examination of the arterial pulse including rate, rhythm, and amplitude.
- EE.** Distinguish normal and abnormal findings of the arterial pulse.
- FF.** Describe the assessment of jugular venous pressure and pulsations.
- GG.** Distinguish normal and abnormal examination findings of the jugular venous pressure and pulsation.
- HH.** Describe the examination of the heart and blood vessels.
- II.** Differentiate normal and abnormal assessment findings of the heart and blood vessels.
- JJ.** Describe the auscultation of the heart.
- KK.** Differentiate the characteristics of normal and abnormal findings associated with the auscultation of the heart.
- LL.** Describe the special examination techniques of the cardiovascular examination.
- MM.** Describe the examination of the abdomen.
- NN.** Differentiate normal and abnormal findings of the abdomen.
- OO.** Describe the auscultation of the abdomen.
- PP.** Distinguish normal and abnormal findings of the auscultation of the abdomen.
- QQ.** Describe the examination of the female genitalia.
- RR.** Differentiate normal and abnormal assessment of the female genitalia.
- SS.** Describe the examination of the male genitalia.
- TT.** Differentiate normal and abnormal findings of the male genitalia.
- UU.** Describe the examination of the anus and rectum.
- VV.** Distinguish between normal and abnormal findings of the anus and rectum.
- WW.** Describe the examination of the peripheral vascular system.
- XX.** Differentiate normal and abnormal findings of the peripheral vascular system.
- YY.** Describe the examination of the musculoskeletal system.
- ZZ.** Differentiate normal and abnormal findings of the musculoskeletal system.
- AAA.** Describe the examination of the nervous system.
- BBB.** Differentiate normal and abnormal findings of the nervous system.
- CCC.** Describe the assessment of the cranial nerves.
- DDD.** Describe the general guidelines of recording examination information.
- EEE.** Discuss the considerations of examination of an infant or child.
- FFF.** Demonstrate a caring attitude when performing physical examination skills.
- GGG.** Discuss the importance of a professional appearance and demeanor when performing physical examination skills.
- HHH.** Appreciate the limitations of conducting a physical exam in the out-of-hospital environment.
- III.** Demonstrate the examination of skin, hair, and nails.
- JJJ.** Demonstrate the examination of the head and neck.
- KKK.** Demonstrate the examination of the eyes.
- LLL.** Demonstrate the examination of the ears.
- MMM.** Demonstrate the assessment of visual acuity.
- NNN.** Demonstrate the examination of the nose.
- OOO.** Demonstrate the examination of the mouth and pharynx.
- PPP.** Demonstrate the examination of the neck.
- QQQ.** Demonstrate the examination of the thorax and ventilation.
- RRR.** Demonstrate the examination of the posterior chest.
- SSS.** Demonstrate the auscultation of the chest.
- TTT.** Demonstrate the percussion of the chest.
- UUU.** Demonstrate the examination of the anterior chest.

<b>VVV.</b>	Demonstrate special examination techniques related to the assessment of the chest.
<b>WWW.</b>	Demonstrate the examination of the arterial pulse including location, rate, rhythm, and amplitude.
<b>XXX.</b>	Demonstrate the assessment of jugular venous pressure and pulsations.
<b>YYY.</b>	Describe the examination of the heart and blood vessels.
<b>ZZZ.</b>	Demonstrate special examination techniques of the cardiovascular examination.
<b>AAAA.</b>	Demonstrate the examination of the abdomen.
<b>BBBB.</b>	Demonstrate the auscultation of the abdomen.
<b>CCCC.</b>	Demonstrate the external visual examination of the female genitalia.
<b>DDDD.</b>	Demonstrate the examination of the male genitalia.
<b>EEEE.</b>	Demonstrate the examination of the peripheral vascular system.
<b>FFFF.</b>	Demonstrate the examination of the musculoskeletal system.
<b>GGGG.</b>	Demonstrate the examination of the nervous system.
<b>HHHH.</b>	Recognize hazards and potential hazards that can affect patient assessment.
<b>IIII.</b>	Describe common hazards found at the scene of a trauma and a medical patient.
<b>JJJJ.</b>	Differentiate safe from unsafe scenes.
<b>KKKK.</b>	Describe methods for making an unsafe scene safe.
<b>LLLL.</b>	Discuss common mechanisms of injury/nature of illness.
<b>MMMM.</b>	Predict patterns of injury based on mechanism of injury.
<b>NNNN.</b>	Discuss the reason for identifying the total number of patients at the scene.
<b>OOOO.</b>	Organize the management of a scene following scene size-up.
<b>PPPP.</b>	Explain the reasons for identifying the need for additional help or assistance.
<b>QQQQ.</b>	Summarize the reasons for forming a general impression of the patient.
<b>RRRR.</b>	Discuss methods of assessing mental status.
<b>SSSS.</b>	Categorize level of consciousness in the adult, infant, and child.
<b>TTTT.</b>	Differentiate between assessing the altered mental status of the adult, a child, and an infant patient.
<b>UUUU.</b>	Discuss methods of assessing the airway in the adult, infant, and child patient.
<b>VVVV.</b>	State reasons for management of cervical spine once the patient has been determined to be a trauma patient.
<b>WWWW.</b>	Analyze a scene to determine if spinal precautions are required.
<b>XXXX.</b>	Describe methods used for assessing if a patient is breathing.
<b>YYYY.</b>	Differentiate between a patient with adequate and inadequate minute ventilation.
<b>ZZZZ.</b>	Distinguish between methods of assessing breathing in the adult, child, and infant patient.
<b>AAAAA.</b>	Compare the methods of providing airway care to the adult, child, and infant patient.
<b>BBBBB.</b>	Describe the methods used to obtain a pulse.
<b>CCCCC.</b>	Differentiate between obtaining a pulse in an adult, child and infant patient.
<b>DDDDD.</b>	Discuss the need for assessing the patient for external bleeding.
<b>EEEEE.</b>	Describe normal and abnormal findings when assessing skin color.
<b>FFFFF.</b>	Describe normal and abnormal findings when assessing skin temperature.
<b>GGGGG.</b>	Describe normal and abnormal findings when assessing skin condition.
<b>HHHHH.</b>	Explain the reason for prioritizing a patient for care and transport.
<b>IIIII.</b>	Identify patients who require transport to be expedited.
<b>JJJJJ.</b>	Describe the evaluation of a patient's perfusion status based on findings in the initial assessment.
<b>KKKKK.</b>	Describe orthostatic vital signs and evaluate their usefulness in assessing a patient in shock.
<b>LLLLL.</b>	Apply the techniques of physical examination to the medical patient.
<b>MMMMM.</b>	Differentiate between the assessment that is performed for a patient who is unresponsive or has an altered mental status and other medical patients requiring assessment.
<b>NNNNN.</b>	Discuss the reasons for reconsidering the mechanism of injury.
<b>OOOOO.</b>	State the reasons for performing a rapid trauma assessment.

- PPPPP.** Recite examples and explain why patients should receive a rapid trauma assessment.
- QQQQQ.** Apply techniques of physical examination to the trauma patient.
- RRRRR.** Describe the areas included in the rapid trauma assessment and discuss what should be evaluated.
- SSSSS.** Differentiate cases when the rapid assessment may be altered in order to provide patient care.
- TTTTT.** Describe the techniques of history taking.
- UUUUU.** Discuss the importance of using open-ended questions.
- VVVVV.** Describe the use of facilitations, reflection, clarification, empathetic responses, confrontation, and interpretation.
- WWWWW.** Describe the structure and purpose of a health history.
- XXXXX.** Describe how to obtain a comprehensive health history.
- YYYYY.** List the components of a comprehensive health history of an adult patient.
- ZZZZZ.** Demonstrate the importance of confidentiality when obtaining a health history.
- AAAAA.** Demonstrate the importance of empathy when obtaining a health history.
- BBBBB.** Compare the factors influencing medical care in the out-of-hospital environment to other medical settings.
- CCCCC.** Differentiate between critical life-threatening, potentially life-threatening, and non life-threatening patient presentations.
- DDDDD.** Evaluate the benefits and shortfalls of protocols, standing orders, and patient care algorithms.
- EEEEE.** Define the components, stages, and sequences of the critical thinking process for Paramedics.
- FFFFFF.** Apply the fundamental elements of critical thinking process for paramedics.
- GGGGG.** Describe the effects of the “fight or flight” response and the positive and negative effects on a paramedic’s decision making.
- HHHHH.** Summarize the “six R’s” of “putting it all together”: read the patient, read the scene, react, reevaluate, review the management plan, and review performance.
- IIIII.** Defend the position that clinical decision-making is the cornerstone of effective paramedic practice.

**14. Representative Texts and Instructional Materials:**

Bledsoe, B. & Porter, R. (2000). *Paramedic Care: Principles & Practice, Patient Assessment*. Upper Saddle River, NJ. Prentice-Hall, Inc.

Campbell, J. (2004). *Basic Trauma Life Support, (5/e)*. Upper Saddle River, NJ: Prentice-Hall, Inc.

Ochoa, H. (1995). *Advanced Life Support Protocols*. Riverside, CA: Riverside County Emergency Medical Services Agency.

Salinas, C. (1995). *Advanced Life Support Protocols*. San Bernardino, CA: Inland Counties Emergency Medical Agency.

Saunders, R. (2000). *Manual of Medical Practice*. Philadelphia: W.B. Saunders Co.

**15. Course Content:**

- A.** Overview of Patient Assessment
- B.** Levels of organization of history and physical examination
- C.** Respiratory system – assessment and pathophysiology
- D.** Circulatory system – assessment and pathophysiology

- E. Nervous system – assessment and pathophysiology
- F. Skeletal system – assessment and pathophysiology
- G. Muscular system – assessment and pathophysiology/exercise
- H. Effects of aging/elderly – assessment and pathophysiology
- I. Digestive system – assessment and pathophysiology
- J. Body temperature
- K. Urinary system – fluid and electrolytes – assessment and pathophysiology
- L. Endocrine system/Immune system/Sensory system – assessment and pathophysiology
- M. Eyes, ears, nose, and mouth – assessments
- N. Reproductive system – assessment and pathophysiology

**16. Methods of Instruction:**

This course will combine lecture, class discussion, clinical case presentations, and activities.

**17. Assignments and Methods of Evaluation:**

Students are required to pass the final comprehensive examination with a grade of 80 percent and accumulate at least 80 percent of possible points. Methods of evaluation will include the following:

- A. Topical examinations (30%- 40%)
- B. Final comprehensive examination (50% - 60%)
- C. Activities (10%-20%)

**18. Distributed Education Methods of Instruction:                   None**