Las Positas College
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Course Outline for EMS 14

PARAMEDIC CLINICAL PRACTICUM

Effective: Fall 2016

I. CATALOG DESCRIPTION:
EMS 14 — PARAMEDIC CLINICAL PRACTICUM — 6.00 units

Provides instruction to enhance student's knowledge of emergency care in a clinical setting. Students are provided access to adequate numbers of patients, proportionally distributed by illness, injury, gender, age, and common problems encountered in the delivery of emergency care appropriate to the level of the Emergency Medical Services Profession(s). Hospital/clinical experiences include the operating room, recovery room, intensive care unit, coronary care unit, labor and delivery room, pediatrics, and emergency department, and include exposure to an adequate number of pediatric, obstetric, psychiatric, and geriatric patients.

6.00 Units Lab

Prerequisite
EMS 11 - Paramedic Theory 2
with a minimum grade of C

EMS 13 - Paramedic Laboratory 2
with a minimum grade of C

EMS 10 - Paramedic Theory 1
with a minimum grade of C

EMS 12 - Paramedic Laboratory 1
with a minimum grade of C

Grading Methods:
Pass/No Pass

Discipline:

	MIN
Lab Hours:	324.00
Total Hours:	324.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:
Before entering the course a student should be able to:

A. EMS11
1. Integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint
2. Integrate assessment findings with principles of epidemiology and pathophysiology to formulatIntegrate comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states.
3. Integrate a comprehensive knowledge of the causes and pathophysiology into the management of shock, respiratory failure or arrest with an emphasis on early intervention to prevent arrest.
4. Integrate assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for patients with special needs.
5. Demonstrate knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

B. EMS13
1. Perform a comprehensive history and physical examination to identify factors affecting the health and health needs of a patient
2. Formulate a field diagnosis based on an analysis of comprehensive assessment findings, anatomy, physiology, pathophysiology, and epidemiology
3. Relate assessment findings to underlying pathological and physiological changes in the patient’s condition.
4. Integrate and synthesize the multiple determinants of health and clinical care.
5. Perform all psychomotor skills within the National EMS Scope of Practice Model and state scope of practice including: medical patient management, cardiac patient management, special population patients, and simulated patient encounters.
6. Communicate in a manner that is culturally sensitive and intended to improve the patient outcome.

C. EMS10
1. Integrate comprehensive knowledge of EMS systems, the safety/well-being of the paramedic, and medical/legal and ethical

issues which is intended to improve the health of EMS personnel, patients, and the community.
2. Integrate a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems
3. Integrate comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.
4. Integrate comprehensive knowledge of pathophysiology of major human systems
5. Integrate comprehensive knowledge of life span development.
6. Apply fundamental knowledge of principles of public health and epidemiology including public health emergencies, health promotion, and illness and injury prevention.
7. Integrate comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.
8. Integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.
9. Integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.
10. Integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient
11. Integrate comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states.
12. Integrate a comprehensive knowledge of the causes and pathophysiology into the management of shock, respiratory failure or arrest with an emphasis on early intervention to prevent arrest.

D. EMS12

1. Relate assessment findings to underlying pathological and physiological changes in the patient's condition.
2. Integrate and synthesize the multiple determinants of health and clinical care.
3. Perform psychomotor skills within the National EMS Scope of Practice Model and state scope of practice including: airway and breathing, patient assessment, pharmacologic interventions, and trauma patient management.
4. Formulate a field impression based on an analysis of comprehensive assessment findings, anatomy, physiology, pathophysiology, and epidemiology.
5. Perform a comprehensive history and physical examination to identify factors affecting the health and health needs of a patient.
6. Communicate in a manner that is culturally sensitive and intended to improve the patient outcome.
7. Create a treatment plan intended to mitigate emergencies and improve the overall health of the patient using knowledge of emergency medical pharmacology.
8. Compare and contrast the names, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose, and any specific administration considerations, for all of the emergency medications and intravenous fluids utilized by the local training institution. Individual training programs have the authority to add any medication used locally by paramedic providers.
9. Apply to patient assessment and management, a fundamental knowledge of the medications carried by paramedics that may be administered to a patient during an emergency.
10. Demonstrate knowledge of the following topics:, Medication safety, medication legislation, medication naming, classifications and schedules; give various examples of medication interactions and medication toxicity.
11. Identify medication routes of administration.
12. Calculate and regulate the flow rate for an IV infusion given the volume, drop factor, and time frame.
13. Perform the following tasks according to the NREMT ALS Psychomotor Skill Sheet Standards: withdraw solutions from ampoules and vials with an appropriately sized syringe, assemble a preloaded syringe (e.g., Bristoject, Abbojet, preload cartridges, etc.), administer an IV push medication, administer IM injections via the: dorsogluteal, ventrogluteal, vastus lateralis, and deltoid sites, administer subcutaneous injections, calculate, mix, and administer an IV medication infusion using microdrip Tubing.
14. Using a comprehensive knowledge of anatomy, physiologies, and pathophysiology of the respiratory system, construct an assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.
15. Demonstrate knowledge of the following topics: Anatomy of the respiratory system, physiology, and pathophysiology of respiration of pulmonary ventilation, oxygenation and respiration, assessment and management of adequate and inadequate respiration, supplemental oxygen therapy.
16. Discuss the assessment and management of adequate and inadequate ventilation.
17. Describe In step-by-step fashion, the generic procedure of rapid sequence intubation.
18. Perform the suctioning technique in the following situations: Oropharyngeal, Endotracheal, Nasopharyngeal, Tracheotomy.
19. Secure a patent airway using an endotracheal tube, King LT airway or other supraglottic airway device.
20. Perform the following procedures under the guidance of a clinical laboratory instructor Intraosseous insertion of an IO needle, enteral and parenteral administration of approved prescription medications, Access indwelling catheters and implanted central IV ports, administer medications by IV infusion, Maintain infusion of blood or blood products, perform blood sampling, thrombolytic initiation, administer physician approved medications, place a Morgan Lens.
21. Identify assessment findings of a simulated patient presentation and formulate a field treatment plan for a patient with a major traumatic systems and minor traumatic injuries.
22. Formulate a comprehensive treatment/disposition plan for an acutely injured patient.

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

1. Perform a comprehensive history and physical examination to identify factors affecting the health and health needs of an actual patient in the emergency department.
2. Formulate a clinical diagnosis based on an analysis of comprehensive assessment findings, anatomy, physiology, pathophysiology, and epidemiology.
3. Relate assessment findings to underlying pathological and physiological changes in the patient's condition.
4. Perform health screening and referrals.
5. Effectively communicate in a manner that is culturally sensitive and intended to improve the patient outcome.
6. Identify and perform all psychomotor skills within the National EMS Scope of Practice Model and state scope of practice at the paramedic level.
7. Demonstrate exemplary professional behavior including but not limited to: integrity, empathy, self-motivation, appearance/personal hygiene, self-confidence, communications, time- management, teamwork/ diplomacy, respect, patient advocacy, and careful delivery of service.
8. Report and document assessment findings and interventions.
9. Perform skills required by local scope of practice policy.
10. Perform 8 hours of observation in the Labor/Delivery ward of a hospital
11. Perform 16 hours of observation in an operating room and successfully achieve 8 intubations on live patients. Student shall perform any intubations not achieved during observation time on a high fidelity simulation mannikin.
12. Perform 40 hours of observation in a psychiatric emergency ward.
13. Perform 160 hours of paramedic scope of practice care in a hospital emergency department under the supervision of a

physician or nurse clinical preceptor.

V. CONTENT:

A. Student shall experience patient encounters under the instruction of a clinical preceptor in a variety of clinical settings to include the following skills which are psychomotor skills in the paramedic's National, State, and Local scope of practice as registered by the NREMT:

1. Emergency department
    a. Intravenous access
    b. medication administration
    c. Collection of 12 lead electrocardiogram
    d. assessment of emergent and non-emergent patients
    e. cardiopulmonary resuscitation
2. Surgical/Operating room
    a. perform orotracheal intubation
3. Obstetric/Labor and delivery department
    a. observe childbirth and communicate with the patient in a professional manner demonstrating empathy and respect for the patient's condition.
4. ICU and or CCU
    a. observe medical care of critically ill patients
5. Psychiatric or behavioral
    a. assessment of psychiatric emergencies at psychatric emergency department and using data from assessment, formulate a clinical diagnosis based on the pathophysiological, epidemiological foundations for the diagnosis.
6. Geriatrics
    a. Perform health screening and refer patient to further care if appropriate
7. Pediatrics
    a. observe care of pediatric patients in pediatric clinic

VI. METHODS OF INSTRUCTION:

A. **Clinical** - Students will be precepted by registered nurses in the Emergency Department, ICU, Pediatric Clinic, Operating Room, and Labor and Delivery ward.
B. **Discussion** - Students will meet regularly with instructor to review clinical objectives, experiences, and assessments.
C. **Written exercises and case studies** - Students will keep detailed records of clinical interactions as directed by instruction and preceptor.
D. **Observation and Demonstration** -

VII. TYPICAL ASSIGNMENTS:

A. Written reports
    1. Complete a patient care report for review by the clinical preceptor
B. Oral presentations
    1. Present a patient's chief complaint, signs and symptoms, and plan of treatment to the emergency physician
C. Manipulative demonstrations
    1. Demonstrate the safe and proper technique to administer intravenous midazolam.

VIII. EVALUATION:

A. **Methods**

1. Oral Presentation
2. Simulation
3. Final Performance
4. Other:
   Students in the clinical practicum will be precepted and monitored by emergency department registered nurses and physicians. The student will be evaluated every 40 hours as to their ability to safely administer medications, manage emergency patients, and accurately assess patients for their chief complaint. Successful completion requires a satisfactory pass evaluation from the clinicl preceptor after a minimum of 160 hours.

B. **Frequency**

Every 40 hours the student will be evaluated on the clincial activities performed during the week.

IX. TYPICAL TEXTS:

1. Andrew Pollak MD FAAOS - Series Editor. *Emergency Care in the Streets.* 7th ed., JB Learning, 2013.
2. Bledsoe MD, Bryan. *Paramedic Care, Principles & Practice.* 4th ed., Pearson Education, 2012.
3. Derr RN, Paula , John Tardiff, and Mike McEvoy EMT-P RN. *Emergency & Critical Care Pocket Guide*. 8th ed., JB Learning, 2014.
4. LPC Faculty. Las Positas College Paramedic Program Field Training Clinical. Las Positas College Paramedic Program Faculty , 2015.
5. FISDAP. Headwaters Software Inc., (2.0).

X. OTHER MATERIALS REQUIRED OF STUDENTS:

A. Stethoscope and Sphygmomanometer
B. Access to a computer to an internet connection
C. Personal protective equipment including proper footwear, pants, and shirt (scrubs).