

HCC EMS 140
Introduction to Advanced Life Support Principles (3 credits)

INSTRUCTOR: Bev Witmer NRP, MAEd

SEMESTER: Summer 2014

COURSE DESCRIPTION:

This course is meant to bridge the gap between the knowledge of Emergency Medical Technicians and advance prehospital providers (EMT-Intermediates and Paramedics). This course includes education in physiology, neurology, cardiology, pulmonology, and electrocardiography.

TEXTBOOK:

None

STUDENT LEARNING OUTCOMES:

- Describe the nature of feedback systems in the human body and their importance to Advanced Life Support (ALS).
- Explain the significance of the autonomic nervous system in ALS treatment.
- Describe in detail the respiratory system and its control systems and how changes in ventilation cause various disease states.
- Describe the components of cardiac output, and how changes in these components lead to hypoperfusion.
- Describe the elements of a normal electrocardiograph.
- Correctly identify cardiac electrical rhythms, including normal sinus rhythm, ventricle tachycardia, supraventricular tachycardia, ventricle fibrillation, asystole, sinus bradycardia, idiojunctional, and idioventricular.
- Describe the principles of pharmacology.
- Explain the importance of aseptic technique to drug administration.
- Describe the general goals of Advanced Cardiac Life Support.
- Describe the limitations of ALS in trauma care.
- Identify the components of paramedic assessment and diagnosis.

COURSE CONTENT OBJECTIVES:

At the completion of this course the student should be able to:

- Compare the roles and responsibilities of EMTs and Paramedics and the follow-up care MD protocols for each.
- Differentiate between the paramedic and the EMT and how each responds to the principles of pharmacology, respiratory and cardiac care.
- Describe the limitations of ALS in trauma care.
- Describe the correct placement of limb leads.
- Integrate basic life support and advanced life support care.

COURSE WORKLOAD: Each 3 credit course requires a total of 112.5 hours of instructional time/student work. The course will have 37.5 hours of instructional time and 75 hours will account for student work outside of instructional time. The average is 5 hours per week of student work.