HEALTH CARE (HCC)

Courses

HCC 111. Emergency Medical Technician I (Evening Only). 4 Credits.
This is the basic course for Emergency Medical Technician/Ambulance that follows the guidelines outlined by the United States Department of Health and Welfare in conjuction with the National Traffic Safety Administration. This a lecture, discussion, demonstration, and practical application of the knowledge and skill necessary to care for individuals who have life-threatening emergencies and injuries. This the first half of the requirement for certification. Prerequisites: ENG 098, FYE 101, RDG 098, or placement. Evening only.

HCC 112. Emergency Medical Technician II (Evening Only). 4 Credits.
This is the continuation of EMT Emergency Medical Technician I, dealing with the care of individuals who have common medical emergencies, childbirth, problems of children as patients, lifting and moving patients, environmental emergencies, and extrication from automobiles. This course is the second half of the requirement for certification. Prerequisite: HCC 111 with a C grade or higher. Evening only.

HCC 201. Paramedicine I. 4 Credits.
This course is the first course designed for Emergency Medical Technicians (EMT) with at least one year as an EMT Basic or Advanced to obtain certification/licensure as a paramedic. Course concepts include: EMS Systems, Patient Assessments, Workforce Safety and Wellness, and Public Health. Upon completion of this course, the student will understand the origins and present-day structure of emergency medical care delivery systems. The paramedic’s roles and responsibilities and his or her relationship to the emergency medical services (EMS) system are explained, as well as the paramedic’s role in the quality-improvement process. Other EMS provider levels are described. The foundations necessary for being a competent, effective, caring, and ethical paramedic are presented. The interrelationships of the National Highway Traffic Safety Administration’s components of the EMS system are outlined, as well as the paramedic’s impact on research, data collection, and evidence-based decision making. The paramedic’s responsibilities as a student and a practitioner are also studied. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: ENG 098, RDG 098 and FYE 101 or placement; HCC 111, HCC 112; BIO 152, HCC 202, HCC 203 (corequisites). Fall.

HCC 202. Paramedicine II. 3 Credits.
This course is the second course designed for EMTs with at least one year as a EMT Basic or Advanced to obtain certification/licensure as a paramedic. Upon completion of this course, the student will be able to describe and apply, in context, the body planes, topographical anatomy, directional terms, and anatomic position. Students will be able to identify basic anatomic structures and related functions and describe each body system, discussing the roles of the structures within these systems and the interaction of body systems in maintaining the life-support chain. Students will be able to discuss possible consequences of illness and injury of these structures and systems on proper functioning of the body. This course will also study Pathophysiology, Life Span Development and Patient Assessment. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: ENG 098, RDG 098, FYE 101 or placement; HCC 111, HCC 112; BIO 152, HCC 201, HCC 203 (corequisites). Fall.

HCC 203. Paramedicine III. 3 Credits.
This course is the third course designed for EMTs with at least one year as an EMT Basic or Advanced to obtain certification/licensure as a paramedic. After completion of this course, the student will understand medication administration as a defining element of paramedic clinical practice. Paramedics use the science of pharmacology in a variety of ways, such as when treating patients who already receive medications on an intermittent or long-term basis. Pre-hospital providers will encounter patients who are experiencing adverse effects of medications taken at home, so it is crucial to obtain a medication history during patient assessment. Paramedics must also understand pharmacology when administering medications to treat patient symptoms during an EMS response or while treating a patient who has been exposed to a potentially toxic chemical, drug, or medication. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: ENG 098, RDG 098 and FYE 101 or placement; HCC 111, HCC 112; BIO 152, HCC 201, HCC 202 (corequisites). Fall.

HCC 211. Paramedicine IV. 3 Credits.
This course is the fourth course designed for EMTs with at least one year as a EMT Basic or Advanced to obtain certification/licensure as a paramedic. Course concepts include a medical overview of establishing and maintaining a patent (open) airway and ensuring effective oxygenation and ventilation are vital aspects of effective patient care. Attempting to stabilize the condition of a patient whose airway is compromised is futile. The human body needs a constant supply of oxygen to carry out the physiologic processes necessary to sustain life; the airway is where it all begins. Few situations will cause such acute deterioration and death more rapidly than airway or ventilation compromise. To preserve life, the airway must remain patent at all times, regardless of the situation. This chapter provides complex knowledge of airway management and ventilation methods, as well as review of anatomical and physiologic considerations. Adherence to the attendance policy and completion of this course with a final grade of B- or better
must be achieved in order to advance in the PAC program. Prerequisites: BIO 152, HCC 201, HCC 202, HCC 203 with a B- or higher; HCC 212, HCC 213, HCC 214 (corequisites). Spring.

**HCC 212. Medical I. 4 Credits.**
This course includes topics related to principles of pharmacology; medication administration and emergency medications; airway management; and respiration and artificial ventilation. This course includes a medical and pathophysiologic review of all body systems. After completion of this course, the student will understand the significance and characteristics of respiratory emergencies in infant, child, and adult populations. Students should be able to demonstrate a fundamental comprehension of the following topics: respiratory anatomy and physiology, pathophysiology, signs and symptoms of various respiratory etiologies (eg, asthma, chronic obstructive pulmonary disease, pneumonia), and the assessment and management necessary to provide basic and advanced care in the pre-hospital setting. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: BIO 152, HCC 201, HCC 202, HCC 203 with a B- or higher; HCC 211, HCC 213, HCC 214 (corequisites). Spring.

**HCC 213. Medical II. 3 Credits.**
This course provides an in-depth review of shock and resuscitation. The course also provides in-depth review and management of special patient populations including anatomy and physiology of the female reproductive system, including the developmental changes during puberty and menopause. Students will be able to identify and describe assessment and treatment for gynecologic emergencies. Special considerations and precautions that a paramedic must observe when arriving at the scene of a suspected case of sexual assault or rape are also discussed. The endocrine system directly or indirectly influences almost every cell, organ, and function of the body. Patients with an endocrine disorder often have a broad range of signs and symptoms, necessitating a thorough assessment and immediate treatment to avert life-threatening emergencies. The endocrine system comprises a network of glands that produce and secrete hormones. This unit will provide a thorough discussion of the endocrine system. In preparation for clinical and field internships the course will review advanced EMS operations including principles of safely operating a ground ambulance, incident management, multiple casualty incidents, air medical, vehicle extrication, hazardous materials and terrorism and disaster. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: BIO 152, HCC 201, HCC 202, HCC 203 with a B- or higher; HCC 211, HCC 212, HCC 214 (corequisites). Spring.

**HCC 214. Paramedicine Clinical I. 4 Credits.**
Students will complete a minimum of 200 hours in a hospital/clinical setting. Student will participate in instruction within the clinical experience under the supervision of a preceptor. Clinical rotation will be conducted in a variety of medical-related facilities, including emergency divisions, intensive care/critical units, psychiatric and pediatric units. Students must document all clinical time and complete program requirements. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: HCC 211, HCC 212, HCC 213 (corequisites). Spring.

**HCC 216. Paramedicine Clinical II. 4 Credits.**
Students will complete a minimum of 200 hours in a hospital/clinical setting. Student will integrate instruction within the clinical experience under the supervision of a preceptor. Clinical rotation will be conducted in a variety of medical-related facilities including emergency division intensive/critical care units; psychiatric, respiratory therapy, anesthesia, surgical, labor and delivery, geriatric and pediatric units. Students must document all clinical time and complete program requirements. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: HCC 214 with a B- or higher; HCC 217 (corequisite). Summer.

**HCC 217. Trauma. 4 Credits.**
In preparation for clinical and field internships, this course will review advanced EMS operations including principles of safely operating a ground ambulance, incident management, multiple casualty incidents, air medical, vehicle extrication, hazardous materials and terrorism and disaster. Basic concepts of the mechanics and bio mechanics of trauma will help students to analyze and manage your patient’s injuries as well as complete associated documentation. In this course, students will be able to integrate comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and pre-arrest states. Students will be able to explain the importance of the American Heart Association’s five links of survival to a successful code. Students will be able to discuss how the use of simulation in training can improve the resuscitation skills of healthcare providers including revisions made by the American Heart Association and International Liaison Committee on Resuscitation to the Emergency Cardiovascular Care and CPR guidelines and the steps of the BLS healthcare algorithm including the proper techniques for performing two-rescuer CPR in adults, children, and infants. Students will become familiar with and when an automated external defibrillator (AED) should be used for an adult, child, or infant. Students will be able to describe the management of a cardiac arrest based on the analysis of the ECG as either a shockable or non-shockable rhythm. Students will be able to list the “Hs and Ts” and explain how they can be managed in the field. Students will be able to describe the different mechanical devices that are available to assist in delivering improved circulatory efforts during CPR. Students will be able to discuss the ethical issues related to the initiation and cessation of resuscitation efforts. Finally, students will be able to explain the importance of the team concept during a code and the various roles of each team member. Adherence to
the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: HCC 211, HCC 212, HCC 213, HCC 214 with a B- or higher; HCC 216 (corequisite). Summer.

**HCC 220. Shock/Resuscitation, Special Populations. 4 Credits.**
This course provides an in depth review of shock and resuscitation including ACLS and PALS training. The course also provides an in depth review and management of special patient populations including obstetrics, neonatal care, pediatrics, geriatrics and patient with special challenges. Students will develop an understanding of the anatomy, physiology, psychological development, epidemiology, pathophysiology, and management of pediatric medical and traumatic emergencies. Student will demonstrate a foundational understanding of the various issues that are associated with the aging process, including physiological, psychological, and social changes that accompany advanced age. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the program. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: HCC 216, HCC 217 with a B- or higher; HCC 221 (corequisite). Fall.

**HCC 221. Paramedicine Field Internship. 3 Credits.**
Students will apply theory and acquired clinical skills while preforming pre-hospital treatment under the supervision of experienced, certified paramedics during 150 hours of field internship. Students will demonstrate satisfactory performance of all program requirements. Adherence to the attendance policy and completion of this course with a final grade of B- or better must be achieved in order to advance in the PAC program. Prerequisites: HCC 216 and HCC 217 with a B- or higher; HCC 220 (corequisite). Fall.