



## Paramedic Credential – Course Equivalence

This document aligns the Durham Tech EMS Core Paramedic Curriculum courses with the National Highway Traffic Safety Administration’s National EMS Education Standards for Paramedic Instruction (hereafter, the NHTSA Education Standards).

Two types of Paramedic credential exist:

- One is issued by the NC State Office of EMS. NCOEMS requires that, to receive a Paramedic credential, a candidate must have gone through a state-approved education program. NCOEMS mandates that state paramedic education programs follow NHTSA’s Education Standards as of 2017. (All paramedic providers who completed their training prior to implementation of the NHTSA Education Standards in NC were required to either take a transition course, or prove in some other way, that they had received commensurate education in compliance with NHTSA’s Education Standards. Thus, all Paramedics who currently hold a valid NC credential have demonstrated mastery of the NHTSA Educational Standards, via completion of their initial provider courses and continuing education, as demonstrated by NCOEMS’ provision of a credential.
- The other type of credential is issued by the National Registry of EMTs. NREMT is a private certifying organization that establishes guidelines and standards for Paramedic education and credentialing. NREMT also mandates that education programs follow NHTSA’s National Education Standards. All paramedic providers who completed a National Registry- approved course (taught by a CAAHEP- accredited program), and who have completed National Registry credentialing, have demonstrated mastery of the NHTSA Educational Standards.

Because both paramedic credentials certify that the student has completed commensurate training, and has mastered the content outlined in the NHTSA Education Standards, we have compared our course learning objectives to the NHTSA Educational Standards. Students who have valid NC Paramedic or National Registry Paramedic credentials should be given credit for the core paramedic courses listed below:

EMS 110	EMS 220	EMS 250
EMS 122	EMS 221	EMS 260
EMS 130	EMS 231	EMS 270
EMS 131	EMS 240	
EMS 160	EMS 241	

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EMS 130 Pharmacology	<p>This course introduces the fundamental principles of pharmacology and medication administration. Topics include the role and responsibility of the paramedic, medical terminology, a review of basic chemistry and biology necessary for understanding pharmacokinetics and pharmacodynamics, general concepts of pharmacology, classification of medicines in the prehospital pharmacopeia, calculation of dosages, legislation of medication administration and storage, and the principles of safe medication administration via enteral and parenteral routes.</p> <p>Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- describe principles of pharmacokinetics and pharmacodynamics</li> <li>- describe mechanism of action of prehospital medications</li> <li>- select appropriate medications based on indication and mechanism of action</li> <li>- accurately calculate drug dosages</li> <li>- administer medications via all routes in the paramedic scope of practice</li> <li>- demonstrate safe medication storage and sharps handling</li> <li>- By placing in approved sharps containers</li> <li>- use appropriate medical terminology when describing medication administration</li> <li>- accurately document medication administration</li> </ul>	<p><b>Preparatory:</b> Integrates comprehensive knowledge of EMS systems, safety/wellbeing of the paramedic, and medical/legal and ethical issues, which is intended to improve the health of EMS personnel, patients, and the community.</p> <ul style="list-style-type: none"> <li>- EMS Systems</li> <li>- Research</li> <li>- Workforce Safety and Wellness</li> <li>- Documentation</li> <li>- Communication</li> <li>- Medical Legal and Ethical</li> </ul> <p><b>Anatomy and Physiology:</b> Integrates a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems.</p> <ul style="list-style-type: none"> <li>- Organization</li> <li>- Cell Structure and Function</li> <li>- Tissue Level of Organization and Membranes</li> <li>- Circulatory System</li> <li>- Nervous System</li> <li>- Digestive System</li> <li>- Endocrine System</li> <li>- Lymphatic and Immune System</li> </ul> <p><b>Medical terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pathophysiology:</b> Integrates comprehensive knowledge of pathophysiology of</p>

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	<ul style="list-style-type: none"> <li>- demonstrate knowledge of scope of practice and operate within medical direction</li> <li>- advocate for evidence-based protocols</li> </ul>	<p>major human systems.</p> <ul style="list-style-type: none"> <li>- Intro</li> <li>- Basic Cellular Review</li> <li>- Cellular Environment</li> </ul> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Principles of Pharmacology</li> <li>- Medication Administration</li> <li>- Emergency Medications</li> <li>- Demonstrate safe medication storage and sharps handling</li> </ul>
EMS 131 Advanced Airway Management	<p>This course introduces advanced airway management techniques. Topics include respiratory anatomy and physiology, airway management and ventilation, use of airway adjuncts and devices, surgical airway intervention, and rapid sequence intubation.</p> <p>Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- discuss the pathophysiology of airway and respiratory compromise</li> <li>- identify airway/respiratory compromise in a variety of simulated patients</li> <li>- utilize all airway adjuncts and devices within the paramedic scope of practice</li> <li>- correctly administer medications to control and maintain airway management in a variety of simulated patients</li> <li>- Work with a team of peers to manage patient care in simulated scenarios</li> </ul>	<p><b>Anatomy and Physiology:</b> Integrates a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems.</p> <ul style="list-style-type: none"> <li>- Respiratory System</li> </ul> <p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pathophysiology:</b> Integrates comprehensive knowledge of pathophysiology of major human systems.</p> <ul style="list-style-type: none"> <li>- Cellular Environment -- Acid-base balances</li> </ul> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to</p>

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	<ul style="list-style-type: none"> <li>- Accurately document skills and simulated patient care</li> <li>- Reassess simulated patients' responses to treatments</li> </ul>	<p>formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Emergency Medications</li> </ul> <p>Airway Management, Respiration and Artificial Ventilation: Integrates 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.</p> <p><b>Patient Assessment:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Primary Survey</li> <li>- Components of Patient History</li> <li>- Secondary Assessment</li> </ul> <p><b>Medicine:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Respiratory</li> <li>- Diseases of the Eyes, Ears, Nose and Throat</li> </ul>

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EMS 160 Cardiology I	<ul style="list-style-type: none"> <li>- This course introduces the study of cardiovascular emergencies. Topics include anatomy and physiology, pathophysiology, electrophysiology, and basic rhythm interpretation in the monitoring leads. Upon completion, students will be able to:</li> <li>- apply cardiac electrodes to patients of all ages and body types on live or simulated patients</li> </ul> <p><b>Primary Cardiac Assessment</b></p> <ul style="list-style-type: none"> <li>- obtain high-quality 3-lead electrocardiograms on live patients</li> <li>- interpret normal and abnormal heart rhythms</li> <li>- identify the underlying pathophysiology of arrhythmias</li> <li>- provide appropriate prehospital treatment of simulated patients who present with arrhythmias</li> <li>- provide basic life support cardiopulmonary resuscitation for simulated patients in cardiac arrest</li> <li>- obtain certification in the Advanced Cardiac Life Support</li> <li>- administer medications appropriately for simulated patients in tachy- and bradyarrhythmias, and cardiac arrest</li> <li>- demonstrate use of a cardiac monitor to obtain EKG rhythms on live patients</li> <li>- demonstrate safe use of a cardiac monitor/defibrillator to provide transcutaneous pacing by use of manikins</li> <li>- demonstrate safe use of a cardiac monitor/defibrillator to provide cardioversion by use of manikins</li> <li>- demonstrate safe use of a cardiac monitor/defibrillator to provide defibrillation by use of manikins</li> <li>- Work with a team of peers to manage patient care in</li> </ul>	<p><b>Anatomy and Physiology:</b> Integrates a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems.</p> <p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pathophysiology:</b> Integrates comprehensive knowledge of pathophysiology of major human systems.</p> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Emergency Medications</li> </ul> <p><b>Patient Assessment:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Scene Size-Up</li> <li>- Primary Assessment</li> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- apply cardiac electrodes to patients of all ages</li> <li>- and body types on live or simulated patients</li> </ul>

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	<p>simulated scenarios</p> <ul style="list-style-type: none"> <li>- Accurately document skills and simulated patient care</li> <li>- Reassess simulated patients' responses to treatments</li> </ul>	<ul style="list-style-type: none"> <li>- demonstrate safe use of a cardiac monitor/defibrillator to provide transcutaneous pacing by use of manikins</li> <li>- demonstrate safe use of a cardiac monitor/defibrillator to provide cardioversion by use of manikins</li> <li>- demonstrate safe use of a cardiac monitor/defibrillator to provide defibrillation by use of manikins</li> <li>- Reassessment</li> </ul> <p><b>Medicine:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Medical Overview</li> <li>- Cardiovascular</li> </ul> <p><b>Shock and Resuscitation:</b> Integrates comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states. Integrates 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.</p>
EMS 122 Clinical I	<p>This course provides the introductory hospital clinical experience for the paramedic student. Emphasis is placed on mastering fundamental paramedic skills. Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- competently perform fundamental paramedic-level skills</li> </ul>	<p><b>Preparatory:</b> Integrates comprehensive knowledge of EMS systems, safety/well-being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.</p>

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	<p>on live patients in a hospital or pre-hospital setting (including EKG interpretation, airway management, and medication administration)</p> <ul style="list-style-type: none"> <li>- interact with patients and other healthcare providers in a professional and appropriate manner</li> <li>- use therapeutic communication strategies in interactions with patients</li> <li>- participate in patient physical assessment and history-taking</li> <li>- accurately document patient encounters</li> </ul>	<ul style="list-style-type: none"> <li>- Documentation</li> <li>- Therapeutic Communication</li> </ul> <p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Medication Administration</li> </ul> <p><b>Airway Management, Respiration, and Artificial Ventilation:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Airway Management</li> <li>- Respiration</li> <li>- Artificial Ventilation</li> </ul> <p><b>Patient Assessment:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Primary Assessment</li> </ul>

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		<ul style="list-style-type: none"> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- Monitoring Devices</li> <li>- Reassessment</li> </ul>
EMS 220 Cardiology II	<p>This course provides an in-depth study of cardiovascular emergencies. Topics include assessment of medical patients with cardiovascular chief complaints, application and interpretation of advanced electrocardiography, cardiac pharmacology, and treatment of patients with cardiac emergencies. Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- obtain high-quality 3-lead, 12-lead, 15-lead and 18-lead electrocardiograms on live patients or designated manikins</li> <li>- interpret 12-lead electrocardiograms, including recognition of myocardial infarctions as verified by the designated instructor</li> <li>- identify the underlying pathophysiology of cardiovascular chief complaints</li> <li>- provide appropriate prehospital treatment of simulated patients who present with cardiovascular chief complaints</li> <li>- provide advanced life support cardiopulmonary resuscitation for simulated patients in cardiac arrest, in accordance with AHA ACLS</li> <li>- administer medications appropriately for simulated patients with cardiovascular chief complaints</li> <li>- demonstrate safe use of a cardiac monitor/defibrillator on cardiac manikin</li> </ul>	<p><b>Anatomy and Physiology:</b> Integrates a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems.</p> <p><b>EKG's and interpretation:</b> Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- obtain high-quality 3-lead, 12-lead, 15-lead and 18-lead electrocardiograms on live patients or designated manikins</li> <li>- interpret 12-lead electrocardiograms, including recognition of myocardial infarctions as verified by the designated instructor</li> </ul> <p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pathophysiology:</b> Integrates comprehensive knowledge of pathophysiology of major human systems.</p> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies</p>

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	<ul style="list-style-type: none"> <li>- recognize signs and symptoms of peri-arrest, and implement treatment to prevent cardiac arrest in simulated patients with approved scenarios</li> <li>- Work with a team of peers to manage patient care in simulated scenarios under the direction of the instructor</li> <li>- Accurately document skills and simulated patient care</li> <li>- - Reassess simulated patients’ responses to treatments</li> </ul>	<p>and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Emergency Medications</li> </ul> <p><b>Patient Assessment:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Scene Size-Up</li> <li>- Primary Assessment</li> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- Monitoring Devices</li> <li>- provide appropriate prehospital treatment of simulated patients who present with cardiovascular chief complaints</li> <li>- provide advanced life support cardiopulmonary resuscitation for simulated patients in cardiac arrest, in accordance with AHA ACLS</li> <li>- administer medications appropriately for simulated patients with cardiovascular chief complaints</li> <li>- Reassessment</li> </ul> <p><b>Medicine:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Medical Overview</li> <li>- Cardiovascular</li> </ul>

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		<p><b>Shock and Resuscitation:</b> Integrates comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states. Integrates 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.</p>
EMS 260 Trauma Emergencies	<p>This course provides in-depth study of traumatic injuries frequently encountered in the prehospital setting. Topics include spinal, thoracic, abdominal, genitourinary, orthopedic, neurological, and multi-system trauma, soft tissue trauma, and trauma of the head, neck, and face, as well as environmental emergencies. Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- Identify potential hazards to themselves on scenes where patients have sustained traumatic injuries (including aggressors, physical dangers, environmental hazards, hazardous materials, traffic, weapons, explosive devices)</li> <li>- Glean information about mechanism of injury from simulated scenes</li> <li>- Perform a thorough trauma assessment on simulated patients</li> <li>- Identify signs and symptoms of traumatic injury on simulated patients</li> <li>- Control simulated bleeding</li> <li>- Identify signs and symptoms of shock</li> <li>- Stabilize simulated traumatic injuries for transport</li> <li>- Identify appropriate ways to access and move injured</li> </ul>	<p><b>Anatomy and Physiology:</b> Integrates a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems.</p> <p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pathophysiology:</b> Integrates comprehensive knowledge of pathophysiology of major human systems.</p> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Emergency Medications</li> </ul> <p><b>Airway Management, Respiration, and Artificial Ventilation:</b> Integrates 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,</p>

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	<p>patients</p> <ul style="list-style-type: none"> <li>- Administer hemostatic agents and other medications indicated for traumatic injuries</li> <li>- Manage airway and ventilation in the context of a patient with traumatic injuries and burns</li> <li>- Reassess simulated patients’ responses to treatments</li> <li>- Work with a team of peers to manage patient care in simulated scenarios</li> <li>- Accurately document skills and simulated patient care</li> </ul>	<p>adequate mechanical ventilation, and respiration for patients of all ages.</p> <p><b>Patient Assessment:</b></p> <p>Integrates 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.</p> <ul style="list-style-type: none"> <li>- Scene Size-Up</li> <li>- Primary Assessment</li> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- Monitoring Devices</li> <li>- Stabilize simulated traumatic injuries for transport</li> <li>- Identify appropriate ways to access and move injured patients</li> <li>- Reassessment</li> </ul> <p><b>Shock and Resuscitation:</b></p> <p>Integrates comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and prearrest states. Integrates 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.</p> <p><b>Trauma:</b></p> <p>Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to</p>

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		implement a comprehensive treatment/disposition plan for an acutely injured patient. <ul style="list-style-type: none"> <li>- Trauma Overview</li> <li>- Bleeding</li> <li>- Chest Trauma</li> <li>- Abdominal and Genitourinary Trauma</li> <li>- Orthopedic Trauma</li> <li>- Soft Tissue Trauma</li> <li>- Head, Facial, Neck, and Spine Trauma</li> <li>- Nervous System Trauma</li> <li>- Special Considerations in Trauma</li> <li>- Environmental Emergencies</li> <li>- - Multi-system Trauma</li> </ul>
EMS 250 Medical Emergencies	This course provides an in-depth study of medical conditions frequently encountered in the prehospital setting. Topics include appropriate prehospital interventions respiratory, neurological, abdominal/gastrointestinal, endocrine, genitourinary, renal, hematological, musculoskeletal, and immunological, toxicological, infectious diseases/conditions, and diseases/ conditions of the ears, eyes, nose, and throat. Upon completion, students will be able to: <ul style="list-style-type: none"> <li>- Perform a thorough medical assessment on simulated patients</li> <li>- Identify signs and symptoms of common medical conditions/diseases</li> <li>- Determine patient acuity after performing patient assessment on simulated patients</li> <li>- Identify appropriate ways to move and transport</li> </ul>	<p><b>Anatomy and Physiology:</b> Integrates a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems.</p> <p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pathophysiology:</b> Integrates comprehensive knowledge of pathophysiology of major human systems.</p> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies</p>

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	<p>patients with medical conditions</p> <ul style="list-style-type: none"> <li>- identify the underlying pathophysiology of medical chief complaints associated with all body systems listed above</li> <li>- provide appropriate prehospital treatment of simulated patients who present with medical chief complaints</li> <li>- Administer medications indicated for medical emergencies</li> <li>- Manage airway and ventilation in the context of a patient with medical emergencies</li> <li>- Reassess simulated patients' responses to treatments</li> <li>- Work with a team of peers to manage patient care in simulated scenarios</li> <li>- Accurately document skills and simulated patient care</li> </ul>	<p>and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Emergency Medications</li> </ul> <p>Airway Management, Respiration, and Artificial Ventilation: Integrates 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.</p> <p><b>Patient Assessment:</b></p> <p>Integrates 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.</p> <ul style="list-style-type: none"> <li>- Scene Size-Up</li> <li>- Primary Assessment</li> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- Monitoring Devices</li> <li>- Determine patient acuity after performing patient assessment on simulated patients</li> <li>- Identify appropriate ways to move and transport patients with medical conditions</li> <li>- provide appropriate prehospital treatment of simulated patients who present with medical chief complaints</li> <li>- Work with a team of peers to manage patient care in simulated scenarios</li> <li>- Reassessment</li> </ul>

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		<p><b>Shock and Resuscitation:</b> Integrates comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states. Integrates 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.</p> <p><b>Medicine:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Medical Overview</li> <li>- Neurology</li> <li>- Abdominal and Gastrointestinal Disorders</li> <li>- Immunology</li> <li>- Infectious Diseases</li> <li>- Endocrine Disorders</li> <li>- Cardiovascular</li> <li>- Toxicology</li> <li>- Respiratory</li> <li>- Hematology</li> <li>- Genitourinary/Renal</li> <li>- Gynecology</li> <li>- Non-traumatic Musculoskeletal Disorders</li> <li>- Diseases of the Eyes, Ears, Nose and Throat</li> </ul>

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<p>EMS 240 Special Challenges in Patient Care</p>	<p>This course introduces strategies for interacting with and assessing diverse groups of patients who may require special care to meet their needs: patients who have been neglected, abused, assaulted, or victimized; patients who are terminally ill, chronically ill, or technology-assisted; bariatric patients; patients with physical disabilities; patients with intellectual or developmental disabilities; and patients who are having behavioral emergencies; and patients who have been socially marginalized and may have reduced access to healthcare (homeless patients, patients living in poverty, patients who do not speak English, minoritized patients, LGBTQIA patients). Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- Modify communication strategies to best meet the needs of simulated patients as directed by instructor</li> <li>- Modify physical assessment and history-taking to best meet the needs of simulated patients as directed by instructor</li> <li>- Formulate appropriate treatment plans that take into account patients' needs</li> <li>- Accommodate special equipment or services that patients may require</li> <li>- Demonstrate therapeutic communication strategies, and treat all live and simulated patients with consideration and respect</li> <li>- Identify patients who may need additional services as per the scenario</li> <li>- Identify patients who are having a psychological crisis</li> <li>- Describe the relationships between poverty, socioeconomic status, marginalization, and health</li> </ul>	<p><b>Special Patient Populations:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Patients with Special Challenges</li> </ul> <p><b>Medicine:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Psychiatric</li> </ul> <p><b>Public Health:</b> Applies fundamental knowledge of principles of public health and epidemiology including public health emergencies, health promotion, and illness and injury prevention.</p> <p><b>Patient Assessment:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Scene Size-Up</li> <li>- Primary Assessment</li> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- Modify communication strategies to best meet the needs</li> </ul>

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	<p>disparity.</p> <ul style="list-style-type: none"> <li>- Demonstrate patient advocacy</li> <li>- Identify public health interventions that could improve the health of any group of patients listed above</li> </ul>	<p>of simulated patients as directed by instructor</p> <ul style="list-style-type: none"> <li>- Modify physical assessment and history-taking to best meet the needs of simulated patients as directed by instructor</li> <li>- Demonstrate therapeutic communication strategies, and treat all live and simulated patients with consideration and respect</li> <li>- Identify patients who may need additional services as per the scenario</li> <li>- Demonstrate patient advocacy</li> <li>- Reassessment</li> </ul>
EMS 270 Life-span Emergencies	<p>This course covers the spectrum of age-specific emergencies from conception through death, and introduces medical legal and ethical issues surrounding end-of-life care, patient autonomy and consent, and patient refusal. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies. Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- Perform a thorough assessment on simulated patients of all ages</li> <li>- Identify signs and symptoms of common gynecologic, obstetric, pediatric, and geriatric conditions/diseases</li> <li>- Determine patient acuity after performing patient assessment on simulated patients as directed by instructor</li> <li>- Identify appropriate ways to move and transport patients of various ages, for whom normal moving devices may not be appropriate as scenario varies</li> <li>- identify the underlying pathophysiology of gynecologic, obstetric, pediatric, and geriatric chief</li> </ul>	<p><b>Life Span Development:</b> Integrates comprehensive knowledge of life span development. <b>Public Health:</b> Applies fundamental knowledge of principles of public health and epidemiology including public health emergencies, health promotion, and illness and injury prevention.</p> <p><b>Patient Assessment:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Scene Size-Up</li> <li>- Primary Assessment</li> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- Monitoring Devices</li> </ul>

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	<p>complaints</p> <ul style="list-style-type: none"> <li>- provide appropriate prehospital treatment of live and simulated patients of all ages</li> <li>- Administer medications indicated for gynecological and obstetrical emergencies through training devices</li> <li>- Correctly demonstrate the procedure for assisting a patient with a normal childbirth</li> <li>- Correctly demonstrate the procedures for assisting a patient with an abnormal childbirth by use of OB training manikin</li> <li>- Calculate appropriate pediatric medication dosages</li> <li>- Calculate appropriate geriatric medication dosages</li> <li>- Participates wellness promotion and injury prevention for obstetric, pediatric, or geriatric patients</li> <li>- Manage airway and ventilation in pediatric and geriatric patients</li> <li>- Reassess simulated patients' responses to treatments</li> <li>- Work with a team of peers to manage patient care in simulated scenarios</li> <li>- Accurately document skills and simulated patient care</li> </ul>	<ul style="list-style-type: none"> <li>- Determine patient acuity after performing patient assessment on simulated patients as directed by instructor</li> <li>- Identify appropriate ways to move and transport patients of various ages, for whom normal moving devices may not be appropriate as scenario varies</li> <li>- provide appropriate prehospital treatment of live and simulated patients of all ages</li> <li>- Administer medications indicated for gynecological and obstetrical emergencies through training devices</li> <li>- Correctly demonstrate the procedure for assisting a patient with a normal childbirth</li> <li>- Reassessment</li> </ul> <p><b>Special Patient Population:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Obstetrics</li> <li>- Neonatal Care</li> <li>- Pediatrics</li> <li>- Geriatrics</li> </ul>
EMS 221 Clinical II	<p>This course provides clinical experiences in the hospital and/or field. Emphasis is placed on increasing the proficiency of students' skills and abilities in patient assessments and the delivery of care. Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- competently perform paramedic-level skills on live patients in a hospital or pre-hospital setting in accordance with syllabus (to include EKG interpretation, airway management,</li> </ul>	<p><b>Preparatory:</b> Integrates comprehensive knowledge of EMS systems, safety/well-being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.</p> <ul style="list-style-type: none"> <li>- Documentation</li> <li>- Therapeutic Communication</li> </ul>

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	<p>and medication administration)</p> <ul style="list-style-type: none"> <li>- interact with patients and other healthcare providers in a professional and appropriate manner as monitored by Field Preceptor</li> <li>- use therapeutic communication strategies in interactions with patients</li> <li>- perform full patient physical assessment and history-taking (with supervision of clinical preceptor)</li> <li>- accurately document patient encounters</li> <li>- discuss patient’s treatment plan with preceptor</li> </ul>	<p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Medication Administration</li> </ul> <p><b>Airway Management, Respiration, and Artificial Ventilation:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Airway Management</li> <li>- Respiration</li> <li>- Artificial Ventilation</li> </ul> <p><b>Patient Assessment:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Primary Assessment - identify signs and symptoms of medical and traumatic emergencies in prehospital patients</li> <li>- History Taking</li> </ul>

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		<ul style="list-style-type: none"> <li>- Secondary Assessment</li> <li>- Monitoring Devices</li> <li>- competently perform paramedic-level skills on live patients in a hospital or pre-hospital setting in accordance with syllabus (to include EKG interpretation, airway management, and medication administration)</li> <li>- interact with patients and other healthcare providers in a professional and appropriate manner as monitored by Field Preceptor</li> <li>- perform full patient physical assessment and history-taking (with supervision of clinical preceptor)</li> <li>- accurately document patient encounters</li> <li>- discuss patient’s treatment plan with preceptor</li> <li>- -Reassessment</li> </ul>
EMS 231 Clinical III	<p>This course provides clinical experiences in the hospital and/or field. Emphasis is placed on enhancing the students' skills and abilities in providing advanced-level care. Upon completion, students will be able to:</p> <ul style="list-style-type: none"> <li>- competently perform paramedic-level skills on live patients in a hospital or pre-hospital setting in accordance with syllabus (to include EKG interpretation, airway management, and medication administration)</li> <li>- interact with patients and other healthcare providers in a professional and appropriate manner</li> <li>- use therapeutic communication strategies in interactions with patients</li> <li>- perform full patient physical assessment and history-taking</li> <li>- accurately document patient encounters</li> </ul>	<p><b>Preparatory:</b> Integrates comprehensive knowledge of EMS systems, safety/well-being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.</p> <ul style="list-style-type: none"> <li>- EMS Systems</li> <li>- Documentation</li> <li>- EMS System Communication</li> <li>- Therapeutic Communication</li> </ul> <p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p>

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	<ul style="list-style-type: none"> <li>- identify signs and symptoms of medical and traumatic emergencies in prehospital patients</li> <li>- develop field impressions of medical and trauma patients with various chief complaints</li> <li>- develop differential diagnosis for medical and traumatic chief complaints</li> <li>- formulate a prehospital treatment plan for medical and trauma patients</li> <li>- exhibit safe conduct on emergency scenes, at the direction of clinical preceptors</li> <li>- participate in multi-agency responses within incident command structure</li> </ul>	<p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Medication Administration</li> </ul> <p><b>Airway Management, Respiration, and Artificial Ventilation:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Airway Management</li> <li>- Respiration</li> <li>- Artificial Ventilation</li> </ul> <p><b>Patient Assessment:</b> Integrates 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.</p> <ul style="list-style-type: none"> <li>- Scene Size-Up</li> </ul> <p><b>Primary Assessment:</b> Identify signs and symptoms of medical and traumatic emergencies in prehospital patients</p> <ul style="list-style-type: none"> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- Monitoring Devices</li> </ul>

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		<ul style="list-style-type: none"> <li>- competently perform paramedic-level skills on live patients in a hospital or pre-hospital setting in accordance with syllabus (to include EKG interpretation, airway management, and medication administration) - formulate a prehospital treatment plan for medical and trauma patients</li> <li>- Reassessment</li> </ul> <p><b>Medicine:</b> Integrates 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.</p> <p><b>Shock and Resuscitation:</b> Integrates comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states. Integrates 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.</p> <p><b>Trauma:</b> Integrates 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.</p> <p><b>EMS Operations:</b> Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.</p>

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		<ul style="list-style-type: none"> <li>- Principles of Safely Operating a Ground Ambulance</li> <li>- Incident Management</li> </ul>
EMS 241 Clinical IV	<p>This course provides clinical experiences in the hospital and/or field. Emphasis is placed on mastering the skills/competencies required of the paramedic providing advanced-level care. Upon completion, students will be able to provide advanced-level patient care as an entry-level paramedic.</p> <p>Specifically:</p> <ul style="list-style-type: none"> <li>- competently perform paramedic-level skills on live patients in a pre-hospital setting in accordance with syllabus under direction of Field Preceptor</li> <li>- interact with patients and other healthcare providers in a professional and appropriate manner</li> <li>- use therapeutic communication strategies in interactions with patients</li> <li>- perform full patient physical assessment and history-taking</li> <li>- accurately document patient encounters</li> <li>- identify signs and symptoms of medical and traumatic emergencies in prehospital patients</li> <li>- develop field impressions of medical and trauma patients with various chief complaints</li> <li>- develop differential diagnosis for medical and traumatic chief complaints</li> <li>- formulate a prehospital treatment plan for medical and trauma patients with guidance of Field Preceptor</li> <li>- implement treatment plans for medical and trauma</li> </ul>	<p>Preparatory: Integrates comprehensive knowledge of EMS systems, safety/well-being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.</p> <ul style="list-style-type: none"> <li>- EMS Systems</li> <li>- Documentation</li> <li>- EMS System Communication</li> <li>- Therapeutic Communication</li> </ul> <p><b>Medical Terminology:</b> Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</p> <p><b>Pharmacology:</b> Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</p> <ul style="list-style-type: none"> <li>- Medication Administration</li> </ul> <p>Airway Management, Respiration, and Artificial Ventilation: Integrates 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.</p> <ul style="list-style-type: none"> <li>- Airway Management</li> </ul>

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	<p>patients with preceptor oversight</p> <ul style="list-style-type: none"> <li>- lead a team of prehospital care providers in patient care for patients of any age or chief complaint with guidance of Field Preceptor</li> <li>- exhibit safe conduct on emergency scenes, at the direction of clinical preceptors</li> <li>- participate in multi-agency responses within incident command structure</li> <li>- participate in vehicle extrication at the direction of preceptors</li> <li>- participate in mass casualty incident response at the direction of preceptors</li> </ul>	<ul style="list-style-type: none"> <li>- Respiration</li> <li>- Artificial Ventilation</li> </ul> <p><b>Patient Assessment:</b></p> <p>Integrates 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.</p> <ul style="list-style-type: none"> <li>- Scene Size-Up</li> <li>- Primary Assessment</li> <li>- History Taking</li> <li>- Secondary Assessment</li> <li>- Monitoring Devices</li> <li>- competently perform paramedic-level skills on live patients in a pre-hospital setting in accordance with syllabus under direction of Field Preceptor</li> <li>- formulate a prehospital treatment plan for medical and trauma patients with guidance of Field Preceptor</li> <li>- implement treatment plans for medical and trauma patients with preceptor oversight</li> <li>- lead a team of prehospital care providers in patient care for patients of any age or chief complaint with guidance of Field Preceptor</li> <li>- Reassessment</li> </ul> <p><b>Medicine:</b></p> <p>Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a</p>

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		<p>patient with a medical complaint.</p> <p><b>Shock and Resuscitation:</b> Integrates comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states. Integrates 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.</p> <p><b>Trauma:</b> Integrates 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.</p> <p><b>Special Patient Population:</b> Integrates 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.</p> <p><b>EMS Operations:</b> Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.</p> <ul style="list-style-type: none"> <li>- Principles of Safely Operating a Ground Ambulance</li> <li>- Incident Management</li> <li>- Multiple Casualty Incidents</li> <li>- Vehicle Extrication</li> </ul>