APS DISTRICT HIGH SCHOOL SCIENCE CURRICULAR FRAMEWORK

Course Title: **Emergency Medical Technician (EMT)** **District Course Number:** **454CC1**

Department: **Science** **NM STARS Number:** **TBA**

Prerequisites: **2 years of a Laboratory Science is Highly Recommended**

Length of Course: **One Year** **Credit/PRI Area:** 1st Semester 1.0 Practical Arts/ 2nd Semester 1.0 Science **Grade Level(s):** **11-12**

Important Notes:

Candidates for an emergency medical technician career should have good dexterity, agility and physical coordination. They should be able to lift and carry heavy loads, have good eyesight (corrective lenses may be used) with accurate color vision and be able to lift at least 50 pounds. The student must have a 2.75 GPA or higher.
Students must successfully complete a CPR course before end of semester one.

COURSE DESCRIPTION: Emergency Medical Technician (EMT) is a course of study directed at providing vital medical care for the sick and injured while transporting them to medical facilities. This course is designed for the student interested in health occupations and in how the body works. To assure a patient's health and well-being the student explores areas that include: determining the nature and extent of the patient's condition, giving appropriate emergency care, transporting the patient to a medical care facility, and specific responsibilities dependent on the EMT's level of training. Literacy strategies are integrated throughout the curriculum. Skills and knowledge acquired in this course can be applied to the Health Science Career Cluster and its respective pathways.

References in parentheses following each standard refer to and are aligned with the State of New Mexico Science Standards (NM-S), the State of New Mexico Health Standards (NM-H), the State of New Mexico Career Readiness Standards (NM-CR), EMT-Basic: National Standards (EMT) and the Albuquerque Public Schools Language Arts Standards (APS-LA). BSI refers to Body Safety Isolation Techniques.

STRATEGIES:
The "Illustrations" column in the *Program of Studies* provides exemplars of the performance standards, strategies, and best practices suggested by National Emergency Medical Curriculum.

ASSESSMENTS:
Assessments may include: authentic and performance-based assessment, set forth by the National Emergency Medical Technicians (EMT) National Exam, cooperative learning, teacher observations, checklists, tests and exams, formal and informal writing, small group and full class discussions, oral and multimedia presentations, projects, demonstrations, and portfolios. Assessments are based on appropriate rubrics.

SUGGESTED INSTRUCTIONAL MATERIALS:
1. Emergency Care Brady 10th Edition , Authors Daniel Limmer and Michael O'Keefe- Prentice Hall
2. Emergency Care Brady 10th Edition Workbook
3. EMT-Basic Course Curriculum- School of Medicine UNM Emergency Medical Services Academy

SUGGESTED WEB SITES:
www.nhtsa.dot.gov/people/injury/ems/pub/**emt**bnsc

Approved by HSCA: November 2007

STRAND I: SAFETY AND ETHICS
CONTENT STANDARD: The student demonstrates acceptable workplace procedures.

BENCHMARKS: A. The student analyzes the factors that help manage the well-being of an Emergency Medical Technician.
B. The student evaluates the Performance Standards for the Medical/Legal and Ethical Issues.
C. The student evaluates the Performance Standards for lifting and moving patients.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
		NOTES: Illustrations include suggested activities for attaining each performance standard. A check for (√) refers to a key feature to look for while assessing student performance.
	1. Describes the steps the EMT-Basic should take for personal protection from airborne and blood borne pathogens (EMT- 1-2.9, NM-H I).	1. The student is in a role-play scenario and chooses the proper BSI (e.g., a student arrives to an accident scene and the patient is bleeding. Proper protection must be used.) The student presents his/her scenario to the class and defends how and why he/she choose the equipment used. ✓ support of argument ✓ effective presentation ✓ audience response ✓ expression of ideas ✓ required components ✓ proper BSI precautions
	2. Lists and discusses emotional reactions that the EMT-Basic and a family member may exhibit when faced with trauma, i.e. (death and dying) (EMT – 1- 2.1, 2.2, NM-H 1, NM-H V).	2. The student develops a written plan for dealing with the stresses of being an EMT. He/She identifies the causes of stress (e.g., multiple casualty incidents, calls involving infants, severe injuries, abuse or neglect or death of a co-worker.) The student practices Critical Incident Stress Management Techniques i.e., strategies used after a major stressful incident. ✓ required components ✓ perceptions/insights ✓ elements of effective writing ✓ appropriate vocabulary usage
	3. Describes and lists EMT – Basic steps for personal protection (EMT – 1 – 2.9, 2.10, NM-H 1, NM-H V).	3. The students are in teams that develop the role of the EMT upon arrival of an accident. Accident scenarios are set up and students establish roles to remain safe. He/She identifies the hazards, and establishes a plan that

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
		keeps the patients and the team safe. The team presents the scenario to the class and discusses the steps taken for establishing the team plan. ✓ effective communication ✓ collaboration/teamwork ✓ positive behaviors ✓ clear and concise description of plan ✓ proper BSI precautions
	4. Describes the scope of practice of an EMT (EMT-1-3.1, NM-H II). 5. Lists and discusses conditions for patient consent (EMT-1-3.3, NM-H IV). 6. Discuss and differentiate the legal aspects confidentiality, negligence (EMT-1-3.7, NM-H IV). 7. Describe the responsibilities of the EMT at a crime scene (EMT-1-3.11, NM-H II).	4-7. The student identifies the set of regulations and ethical considerations that define the scope or extent and limits of the EMT-B's job. He/She participates in a variety of scenarios where he/she chooses the correct ethical decision. He/She: • delivers as a patient, expressed consent, implies consent and patients refusal of care. • acts as a patient and demonstrates an awareness of legal situations of confidentiality, negligence and abandonment. • identifies potential crime aspects of a crime scene. An intoxicated person injures another person - What is the responsibility of the EMT-B? ✓ collaboration/teamwork ✓ accurate reporting of information ✓ effective communication ✓ understanding of key concepts ✓ appropriate modeling ✓ acts appropriately to each level of patient consent
	8. Describe basic anatomy in terms of the regions of the body, terminology, structure and function of major body systems (EMT-1-4.2).	8. The student identifies to the class the anatomical and positional terms. He/She is given bones and builds an articulated skeleton. The student is given models of human organs and asked to describe the function of these organs. ✓ understanding of the skeletal system ✓ clarity in communication ✓ visual aids ✓ specific examples ✓ effective communication of key concepts
	9. Demonstrate proper body mechanics used to lift and move patients (EMT-1-6.2, NM-H I). 10. Demonstrate proper technique used to immobilize, move and carry patients (EMT-1-6.2, NM-H I).	9,10. In teams the students simulate the proper techniques for moving and lifting patients (e.g., foot and arm position, keep weight close to the body, practice using legs to lift heavy objects off the ground.). The team then demonstrates the different drag methods (e.g., the clothes drag, shoulder drag, incline drag, foot drag, fire fighters drag and blanket

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
		drag, one rescuer assist, cradle carry, backpack carry and firefighters carry.) After each presentation, the group facilitates a discussion eliciting information related to the techniques used and what other factors may be involved when moving/lifting patients (e.g., weight, age, medical condition). ✓ appropriate modeling ✓ effective communication ✓ ability to perform the required measurements ✓ teamwork/collaboration ✓ relevant information

STRAND II: AIRWAY MANAGEMENT
CONTENT STANDARD: The student explores normal and abnormal respiratory systems, and how to create and maintain optimal airflow in patients.

BENCHMARKS: A. The student investigates structures and functions of the respiratory system.
B. The student examines causes of inadequate breathing and oxygen intake.
C. The student demonstrates different techniques for establishing and maintaining an airway.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	1. Names and labels the major structures of the respiratory system on a diagram (EMT-2-1.1, NM-H I). 2. Lists the signs of adequate and inadequate breathing (EMT-2-1.2,3, NM-H III). 3. Describes and demonstrates the steps of performing the head-tilt chin lift (EMT-2-1.4, 25). 4. Relates the mechanism of injury to opening the airway (EMT-2-1.5). 5. States the importance of having a suction unit ready for immediate use when providing emergency care (EMT-2-1.7). 6. Describes and demonstrates the techniques of suctioning (EMT-2-1.9, 27). 7. Describes how to artificially ventilate a patient with a pocket mask (EMT-2.1.9). 8. Describe how to measure and insert oropharyngeal (oral) and nasopharyngeal (nasal) airway (EMT-2-1.17, 18). 9. Define and use the components of an oxygen delivery system (EMT-2-1.19). 10. Describe and demonstrate the use of a nonrebreather facemask, and state the oxygen flow requirements needed for its use (EMT-2-1.20).	1-10. The student dissects a cat's respiratory system. He/She traces the path of an oxygen molecule from the air through the respitory system and describes the air exchange within the lungs and then traces the path of carbon dioxide back to the environment. In a class discussion the student describes the roles of oxygen and carbon dioxide in the respitory system and gives specific examples to illustrate that concept. ✓ appropriate modeling ✓ ability to perform the required measurements ✓ relevant information Student uses a stethoscope to listen to normal respiratory sounds and assess systolic and diastolic pressures in a volunteer patient. Student monitors chest rise and fall, assesses the rate and quality of breathing, calculates pulse rate of patient. Student assesses skin color and observes pupils to assess size, reactivity and equality. ✓ appropriate modeling ✓ effective communication ✓ ability to perform the required measurements ✓ relevant information ✓ appropriate observations Student listens to audio tapes of a variety of abnormal breathing sounds (asthma, pneumonia, aspiration, etc.) and distinguishes the characteristics unique to each condition. After watching a video presentation of how to open and maintain an airway, perform suctioning, orotracheal intubation, and perform gastric tube insertion, student practices these techniques using a medical dummy (i.e. Rescue Annie, Simulation Man). ✓ appropriate modeling ✓ effective communication

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
		✓ ability to perform the required measurements ✓ teamwork/collaboration ✓ relevant information

STRAND III: PATIENT ASSESSMENT
CONTENT STANDARD: The student evaluates immediate needs of patient care, and prioritizes emergency treatment and transport for patients of all ages.

BENCHMARKS: A. The student evaluates immediate patient needs.
B. The student determines patient's vital signs.
C. The student evaluates and prioritizes medical and trauma induced needs of patients.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	1. Summarize the reasons for forming a general impression of the patient (EMT-3-2.1). 2. Discuss and demonstrate methods of assessing the following conditions in adults, children, and infants: (EMT3-2.1-19, NM-H III, NM-H IV). • altered mental status or unresponsive • adequate breathing • cervical spine injury • obtaining a pulse • evaluating internal and external bleeding • body temperature and skin color • determining skin capillary refill 3. Describe normal and abnormal findings for the following conditions in adults, children, and infants (EMT3-2.1-19, NM-H III, NM-H IV): • altered mental status or unresponsive • adequate breathing • cervical spine injury • obtaining a pulse • evaluating internal and external bleeding • body temperature and skin color • determining skin capillary refill 4. State and demonstrate what care should be provided to the adult, child and infant patient with the following conditions (EMT3-2.22-26, NM-H III, NM-H IV): • inadequate breathing or airway obstruction • altered mental status or unresponsive patient • cervical spine injury • abnormal pulse • internal/external bleeding	1-8. Student alternately presents a medical scenario, or observes a medical scenario presented by classmates. Presentation: Student works as part of a team to develop and present a simulated emergency scenario (accident, medical emergency, altered mental status, choking, trauma, etc.) to fellow students. Scenarios must include appropriate signs, symptoms, and characteristics of the assigned emergency situation. Observation: Observing student assesses the immediate needs of simulated patient, takes medical history, and describes appropriate treatment for a patient with a specific complaint with no known prior history. He/She prioritizes care and transport of multiple patient emergencies. ✓ analysis ✓ effective communication ✓ ability to perform the required measurements ✓ use of appropriate equipment ✓ reasoning skills

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	• abnormal body temperature and/or skin color • abnormal or absent skin capillary refill 5. States reasons for management of the cervical spine once the patient has been determined to be a trauma patient (EMT-3-2.5). 6. Stabilize and prioritize patients for care and transport (EMT-3-2.19). 7. Explain the importance of forming a general impression of the patient, and the value of performing a rapid trauma assessment (EMT-3.2.20-21). 8. Differentiate between a focused medial history/physical exam and an initial assessment, and determine under which conditions each is appropriate (EMT-3-3.1-6, 3-4.1-4, NM-H III, NM-H IV).	

STRAND IV: MEDICAL EMERGENCIES
CONTENT STANDARD: The student identifies characteristics of medical emergencies caused by diseases, malfunctions in the body, or childbirth.

BENCHMARKS: A. The student researches symptoms and causes of frequently encountered medical conditions.
B. The student investigates treatments and potential outcomes of frequently encountered medical conditions.
C. The student demonstrates the care of mother and baby during normal childbirth and during complications of childbirth.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	1. Characterizes patients with altered mental status due to medications, overdose, head injuries, mental illness, behavioral problems, disease, or poisoning (EMT-4-4.1-10). 2. Lists the symptoms exhibited in patients due to (EMT-4.1-4.8, NM-H III, NM-H IV): • excessive exposure to heat or cold • near drowning • respiratory emergencies • cardiac emergencies • acute abdominal emergencies • diabetic emergencies and altered mental status • allergic reactions • poisoning and overdose emergencies • environmental emergencies • behavioral emergencies • obstetrics and gynecological emergencies 3. Explain and demonstrate the treatment for emergencies due to (EMT-4.1-4.8, NM-H III, NM-H IV): • excessive exposure to heat or cold • near drowning • respiratory emergencies • cardiac emergencies • acute abdominal emergencies • diabetic emergencies and altered mental status • allergic reactions • poisoning and overdose emergencies • environmental emergencies	1-3. Student researches assigned medical condition (i.e. cardiac emergency, Acute Abdominal Emergencies, Diabetic Emergencies, Altered Mental Status, Allergic Reactions, Poisoning, Overdose Emergencies, Environmental Emergencies, Behavioral Emergencies, Obstetrics and Gynecological Emergencies) gathering information from a variety of sources. After compiling the information the student writes a formal paper synthesizing this information, and presents his/her findings to the class. Research must include, signs, symptoms, causes, age differentiation in presentation, and emergency treatment. ✓ proper diagnosis and treatment ✓ analysis ✓ effective communication ✓ use of appropriate equipment ✓ ability to articulate ideas

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	• behavioral emergencies • obstetrics and gynecological emergencies 4. Student summarizes the steps in labor and childbirth and describes the medical interventions needed in a normal, premature, and breech deliveries (EMT-4-9.1-29).	4. Student views educational film about the stages of labor and delivery during a normal childbirth and childbirth with complications. Student lists the steps in normal childbirth from the onset of labor to the delivery of the placenta. He/She then describes, in writing, possible complications of childbirth and the appropriate treatment for each complication. ✓ proper diagnosis and treatment ✓ relevant information ✓ ability to communicate

STRAND V: TRAUMA
CONTENT STANDARD: The student evaluates signs and symptoms of trauma, and recommends proper care of trauma patients.

BENCHMARKS:
A. The student recognizes symptoms of arterial, venous, capillary bleeding, and internal bleeding.
B. The student practices steps for controlling bleeding.
C. The student recognizes signs, symptoms and care of patients in shock.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	1. Student lists the structures and functions of the circulatory system, differentiating between arterial, venous, and capillary systems (EMT-5-1.1, NM-H III).	1-3. The student demonstrates the application of direct pressure, elevation, splints and tourniquets to control bleeding on other students in the class. The patients in this scenario will have to demonstrate signs and symptoms of shock due to a loss of blood. ✓ use of appropriate equipment ✓ reasoning skills ✓ logical conclusions ✓ use of process
	2. Student recognizes and lists the signs of internal and external bleeding and states methods of emergency treatment for bleeding and shock (EMT-5-1.9).	
	3. Student demonstrates the care of patients exhibiting bleeding, or shock symptoms (EMT-5-1.16).	
	4. Student lists the characteristics of superficial, partial thickness, and full thickness burns (EMT-5-2.11-17).	4-8. The student is presented with a soft tissue injury. He/She classifies the type of injury, uses the appropriate dressing and bandages that insures safe transportation to a medical facility. ✓ proper diagnosis and treatment ✓ logical conclusions ✓ analysis ✓ accuracy and thoroughness
	5. Student demonstrates treatment for patients exhibiting of superficial, partial thickness, and full thickness burns (EMT-5-2.18-20).	
	6. Student lists the functions of dressing and bandaging, and demonstrates the steps in applying dressings and bandages (EMT-5-2.21).	
	7. Student lists the characteristics exhibited by patients with an impaled object, amputation, chemical or electrical burns (EMT-5-2.26-29, NM-H III, NM-H IV).	7-9. The student is presented with a variety of injuries. He/She distinguishes between the following musculoskeletal injuries: pain and tenderness, deformity or angulation, grating, swelling, bruising, exposed bone ends, burns, nerve and blood vessel compromise. ✓ analysis ✓ reasoning skills ✓ use of logic ✓ accurate information
	8. Student demonstrates proper treatment for patients with an impaled object, amputation, chemical or electrical burns (EMT-5-2.33-39).	
	9. Student lists signs of skeletal and spinal injuries (EMT-5-4.4).	
	10. Student lists steps in splinting extremities, and immobilizing patients with suspected spine injuries (EMT-5-4.35).	10-11. The student applies traction, stabilizes, and splints different body extremities on a partner. He/She is then presented with a scenario that

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	11. Student demonstrates splinting and cervical spine immobilization (EMT-5.-4.35)**.**	simulates an emergency situation where the patient has a head or neck injury. The student identifies the nature of the injury and takes appropriate measures of immobilization to insure no further injury is sustained during transport to the hospital. ✓ proper procedures ✓ hands-on skills ✓ problem solving ✓ collaboration/teamwork

STRAND VI: OPERATIONS
CONTENT STANDARD: The student develops skills in the operation of emergency vehicles, multiple casualty emergencies, or emergencies involving hazardous materials.

BENCHMARKS: A. The student describes proper operation and maintenance of an ambulance.
B. The student learns emergency driving laws and regulations.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	1. Describes the traffic laws that pertain to operating an emergency vehicle (EMT-7-1.31).	1. The student is presented with a traffic scenario where He/She is the driver of an ambulance. The student responds properly to different traffic situations. For example, who has the right away at traffic lights, the proper speed of an ambulance during transport of a patient. The student uses the warning devices on the ambulance in proper fashion.
	2. Demonstrates cleaning and disinfecting of emergency equipment (EMT-7-1.14).	2. The students will clean and disinfect all the equipment in the classroom setting according to the guidelines set forth by the National EMT curriculum. After cleaning and disinfecting all equipment the student catalogs and returns it to storage.
	3. Describes the EMT's role during a call involving hazardous materials (EMT-7-3.1).	3. The student participates in role-play vignettes in which different hazardous materials accidents are portrayed. He/She determines the proper response to each situation. He/She describes precautions needed to insure his/her own safety, and identifies the substance(s). The student uses online resources to obtain the MSDS for the substance(s), determines if the substance is safe, and performs proper decontamination and containment techniques when indicated. ✓ effective communication ✓ reasoning skills ✓ proper use of equipment ✓ participation
	4. Describe EMT's role in an accident with multiple casualties (EMT-7-3.13).	4. The student researches Albuquerque's disaster plan and applies it to a natural disaster that causes multiple casualties. He/She presents his/her findings in a Power Point presentation to the class. ✓ effective communication ✓ reasoning skills ✓ ability to present ideas ✓ logical conclusions

STRAND VII: SCIENCE AND SOCIETY
CONTENT STANDARD: The student understands how scientific discoveries, inventions, practices, and knowledge influence and are influenced by individuals and societies.

BENCHMARK: The student examines and analyzes how scientific discoveries and their applications affect the world and explains how societies influence scientific investigations and application.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	1. Knows how science enables technology but also constrains it, and recognizes the difference between real technology and science fiction (e.g., rockets vs. antigravity machines, nuclear reactors vs. perpetual-motion machines, medical X-rays vs. Star-Trek tricorders) (NM - III.I.I.1). 2. Understands how advances in technology enable further advances in science (e.g., microscopes and cellular structure, telescopes and understanding of the universe) (NM - III.I.I.2). 3. Evaluates the influences of technology on society (e.g., communications, petroleum, transportation, nuclear energy, computers, medicine, genetic engineering) including both desired and undesired effects, and including some historical examples (e.g., the wheel, the plow, the printing press, the lightning rod) (NM - III.I.I.3). 4. Understands the scientific foundations of common technologies (e.g., kitchen appliances, radio, television, aircraft, rockets, computers, medical X-rays, selective breeding, fertilizers and pesticides, agricultural equipment) (NM - III.I.I.4). 5. Understands that applications of genetics can meet human needs and can create new problems (e.g., agriculture, medicine, cloning) (NM - III.I.I.5). 6. Analyzes the impact of digital technologies on the availability, creation, and dissemination of information (NM - III.I.I.6).	1 – 5, 9, 11, 16. The student writes a paper on a controversial topic (e.g., cloning) stating the advantages and disadvantages of the current concepts with an emphasis on the latest technological advances. ✓ support for argument ✓ both sides of the issue ✓ technological influences 6. The *Journal of the American Medical Association*(JAMA) and the *New England Journal* of Medicine are the two most prominent journals where medicine is reported and where others can find out what is going on in the medical field. Every nine weeks the student reads three original research articles from these journals and writes a critique and abstract of the articles. ✓ reading analysis ✓ task completion ✓ organization and sharing of information

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	7. Describes how human activities have affected ozone in the upper atmosphere and how it affects health and the environment. 8. Describes uses of radioactivity (e.g., nuclear power, nuclear medicine, radiometric dating) (NM - III.I.I.8). 9. Describes how scientific knowledge helps decision makers with local, national, and global challenges (e.g., Waste Isolation Pilot Project [WIPP], mining, drought, population growth, alternative energy, climate change) (NM - III.I.I.9). 10. Describes major historical changes in scientific perspectives (e.g., atomic theory, germs, cosmology, relativity, plate tectonics, evolution) and the experimental observations that triggered them (NM - III.I.I.10). 11. Knows that societal factors can promote or constrain scientific discovery (e.g., government funding, laws and regulations about human cloning and genetically modified organisms, gender and ethnic bias, AIDS research, alternative-energy research) (NM - III.I.I.11).	7, 8, 15. The student works on projects throughout the semester. One such project that is ongoing at all times – five a semester – is the case study. The student assumes the role of a physician where he/she diagnoses the symptoms of a patient, gives a prognosis, and prescribes treatment. The case studies vary in nature. One example may be where an environmental toxin is a cause for medical problems in several individuals. In order for a student to render proper treatment, he/she researches the problem, uses deductive reasoning, and applies problem-solving skills. ✓ proper diagnosis and treatment ✓ reasoning and problem solving ✓ thorough research 10. The student views a video on the history of anesthesia (e.g., 1700 – 1800s) taking the student from the most elementary forms (e.g., whiskey, nitrous oxide, chloroform, morphine) to current forms. The student learns that "the father of anesthesia" experimented on himself until he became addicted. The student takes notes during the viewing noting every drug mentioned, its effect, the outcome, when it was used, for what it was used, how the drug was used, and if the drug is still used. At the end of the video, the student selects one that most impressed him/her and writes a paper stating why he/she chose that particular drug. ✓ listening skills ✓ note taking ✓ personal response ✓ support for argument ✓ effective communication 11, 17. The student listens to a guest speaker (e.g., someone from the AIDS Society, technical person) talk about the epidemiology of AIDS (e.g., how it spreads, who gets it). After the lecture on this disease, the student listens to a person who has AIDS and/or a person who is living with it. That individual explains what it is like to live with it and the impact it has had on him/her. The student is free to ask questions. Afterwards, a discussion follows where the student talks about personal responsibilities. ✓ listening skills ✓ appropriate behavior (e.g., questions) ✓ individual participation in discussion ✓ prevention theories Note: A common thread throughout the course is the examination of diseases that have no cure.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	12. Explains how societies can change ecosystems and how these changes can be reversible or irreversible (NM - III.I.I.12). 13. Describes how environmental, economic, and political interests impact resource management and use in New Mexico (NM - III.I.I.13). 14. Describes New Mexico's role in nuclear science (e.g., Manhattan Project, WIPP, national laboratories) (NM - III.I.I.14). 15. Identifies how science has produced knowledge that is relevant to individual health and material prosperity (NM - III.I.I.15). 16. Understands that reasonable people may disagree about some issues that are of interest to both science and religion (e.g., the origin of life on Earth, the cause of the Big Bang, the future of Earth) (NM - III.I.I.16). 17. Identifies important questions that science cannot answer (e.g., questions that are beyond today's science, decisions that science can only help to make, questions that are inherently outside of the realm of science) (NM - III.I.I.17). 18. Understands that scientists have characteristics in common with other individuals (e.g., employment and career needs, curiosity, desire to perform public service, greed, preconceptions and biases, temptation to be unethical, core values including honesty and openness) (NM - III.I.I.18). 19. Knows that science plays a role in many different kinds of careers and activities (e.g., public service, volunteers, public office holders, researchers, teachers, doctors, nurses, technicians, farmers, ranchers) (NM - III.I.I.19).	12, 13. Through lectures and text readings the student learns that society in some way has caused certain diseases to thrive (e.g., West Nile virus, hantavirus). The student researches one such disease, preferably one that is predominant in New Mexico (e.g., poverty, diabetes in Hispanics) and reports on its health effects in either an oral or written format. ✓ thorough research ✓ effective presentation ✓ clarity in communication ✓ relevant information 14. The student participates in a discussion about New Mexico's role in nuclear science. Main ideas to come out of this are Los Alamos role in the creation of the bomb, its role in WWII, and the labs (e.g., Sandia Labs). ✓ active participation in discussion ✓ understanding of New Mexico's role in nuclear science development 18, 19. The student takes a field trip to one of the local hospitals, listens to a variety of guest speakers (e.g., physicians lecture series) where different people involved in the medical field (e.g., cardiologist, pediatrician, physical therapist, internist) come in and talk about their fields and topics of interest (e.g., ethics). For each visit made or speaker that comes in, the student takes notes and turns them in with a personal reflection. ✓ note taking ✓ personal reflection ✓ attention to detail ✓ awareness of medical career opportunities

STRAND VIII: CAREER READINESS
CONTENT STANDARD: The student prepares for entering the professional arena in a health-care setting.

BENCHMARKS: A. The student explores the expectations, roles, and guidelines of a medical professional.
B. The student applies the principles of professional behavior in the health-care setting.

GRADE 11-12	PERFORMANCE STANDARDS	ILLUSTRATIONS
	1. Examines responsibilities, activities, and practices of an EMT (CR – 1B). 2. Defines short term and long-term professional goals (CR – 2A). 3. Recognizes personal strengths and areas of professional growth (CR – 2B). 4. Develops technological skills (CR – 3D). 5. Identifies positive behavior, conduct, and social manners within the school, workplace, and community (CR – 4A). 6. Demonstrates ability to work cooperatively to accomplish objectives (CR – 4B). 7. Identifies appropriate and legal behaviors necessary to obtain and maintain employment (CR – 4C). 8. Investigates safety standards related to the school, community, and workplace (CR – 4D). 9. Identifies individual interests, aptitudes, and skills within the group to accomplish goals (CR – 5A). 10. Demonstrates ability to work with others from diverse backgrounds (CR – 5C). 11. Applies critical thinking and problem-solving skills, or identifies problems and uses critical thinking skills and team skills, to solve problems (CR – 5E). 12. Recognizes the results of the process (CR – 5F).	1-12. The student researches (e.g., Internet, medical library, journals) professional options and opportunities in the area of emergency medical services and uses that information to develop a career plan. He/She includes in the plan short term and long term goals; areas of strength and growth; and the skills (e.g., technical, communication, education) needed to be successful in the laboratory and within the emergency medical system (EMS). Another component of the plan is a description of the working environment in an EMS. This includes care for patients, working with peers, staffs at health care facilities, and an example of a health plan for a patient. Before the student submits his/her plan to the instructor, he/she discusses and shares the plan with other students in a small group. The members of the group critique each other's plans and make recommendations for modification. 1. thorough research 2. relevant information 3. completion of career plan 4. realistic and viable plan 5. insights 6. personal connections 7. problem-solving skills 8. all required components 9. collaboration and cooperation 10. open to constructive criticism