

## EMSP 125 Advanced Emergency Medical Technician 7 CREDITS

### SYLLABUS

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#### CATALOG DESCRIPTION

Serves as the theory component of the Advanced Emergency Medical Technician curriculum. Reviews foundational information from the EMT course. Includes instruction on advanced skills including advanced patient assessment, intravenous access, intravenous fluid resuscitation, and expanded medication administration. Taken in combination with a lab course and a clinical/field internship. Special prerequisites: High school diploma or GED; Current NM EMT licensure; National Registry EMT certification valid through the duration of the program; Current AHA Basic Life Support for the Healthcare provider CPR certification valid through the duration of the program.

Prerequisites: High school diploma or GED; Current NM EMT licensure; National Registry EMT certification valid through the duration of the program; Current AHA Basic Life Support or comparable healthcare provider CPR certification valid through the duration of the program; Completion of RDNG-099 or Reading Accuplacer score of 70+ or ENGL 111. Accuplacer Math score of 61+ or equivalent completion of MATH 096, 115 or higher. Additional requirements possible as established by clinical and/or field sites.

Co requisites               EMSP 128

Semester Offered:       Fall, Spring

#### ***Common Student Learning Outcomes***

*Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...*

##### **BROAD AND SPECIALIZED LEARNING**

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

##### **CRITICAL THINKING**

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

##### **CULTURAL AND CIVIC ENGAGEMENT**

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

##### **EFFECTIVE COMMUNICATION**

Students will exchange ideas and information with clarity in multiple contexts.

##### **INFORMATION LITERACY**

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

##### **INTEGRATING TECHNOLOGIES**

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

*Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.*

## COURSE LEARNING OUTCOMES

### General Learning Objectives

1. Demonstrate the ability to comprehend, apply, and integrate knowledge of the preparatory content for Advanced EMT educations, including EMS systems, workforce safety and wellness, medical, legal and ethical issues, communications and documentation, the human body, and life span development.
  2. Demonstrate the ability to comprehend, apply, and integrate knowledge of Advanced EMT pharmacology.
  3. Demonstrate the ability to comprehend, apply, utilize psychomotor skills in IV access and administration, and medication administration.
  4. Demonstrate the ability to comprehend, apply, and integrate knowledge of patient assessment.
  5. Demonstrate the ability to comprehend, apply, and integrate knowledge of airway management and utilize advanced airway adjuncts.
  6. Demonstrate the ability to comprehend, apply, and integrate knowledge of shock and resuscitation.
  7. Demonstrate the ability to comprehend, apply, and integrate knowledge of medical emergencies to manage and formulate a treatment plan intended to stabilize, treat and improve the overall health of the patient.
  8. Demonstrate the ability to comprehend, apply, and integrate knowledge of trauma emergencies to manage and formulate a treatment plan intended to stabilize, treat, and improve the overall health of the patient.
  9. Comprehensive knowledge of the pathophysiology, assessment and treatment of neonatal, obstetric and pediatric patients and patients identified as having special medical challenges.
  10. Demonstrate the ability to comprehend, apply, and integrate knowledge of EMS operations, including lifting and moving patients, transport operations, vehicle extrication and special rescue, incident management, terrorism response and disaster management.
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### Specific Learning Objectives:

Upon successful completion of the course, the student will be able to...

1. Apply fundamental knowledge of the EMS system, safety/well-being of the AEMT, medical/legal and ethical issues to the provision of emergency care.
2. Apply fundamental knowledge of the impact of research on emergency medical responder care, data collection, and evidence-based decision making.
3. Use simple knowledge of the principles of the role of EMS during public health emergencies.
4. Apply fundamental knowledge in standard safety precautions, personal protective equipment, stress management, prevention of response-related injuries, lifting and moving patients, prevention of work-related injuries, disease transmission, and wellness principles.
5. Apply fundamental knowledge of therapeutic communication with patients, including interview techniques, strategies for age, stage of development, special needs patients, and differing cultures.
6. Apply fundamental knowledge in the EMS system communication, documentation, and medical terminology.
7. Apply fundamental knowledge in anatomy and physiology, including complex knowledge of the anatomy and physiology of the airway, respiratory, and circulatory systems, and pathophysiology of respiration and perfusion to patient assessment and management.
8. Apply fundamental knowledge of life span development to patient assessment and management.
9. Apply fundamental knowledge of pharmacology and principles of pharmacology, as it applies to patient assessment and management, for the medications carried by AEMTs that may be administered to patients during an emergency.
10. Apply fundamental knowledge of medication administration and emergency medications.
11. Apply fundamental knowledge of patient assessment, including scene size-up, primary assessment, history taking, secondary assessment, monitoring devices, and reassessment.
12. Apply fundamental knowledge of airway management, respiration, and artificial ventilation, and the pathophysiology of respiration and perfusion to patient assessment and management.

13. Apply fundamental knowledge of shock and resuscitation to provide basic and selected advanced emergency care and transportation based on assessment findings for a patient in shock, respiratory failure or arrest, cardiac failure or arrest, and post resuscitation management.
14. Apply fundamental knowledge of medical overview and infectious diseases.
15. Apply fundamental knowledge of respiratory emergencies, including anatomy, signs, symptoms and management of emergencies that affect the upper airway, and lower airway.
16. Apply fundamental knowledge of cardiovascular emergencies, including the pathophysiology, medicine applied for the acutely ill patient, anatomy, signs, symptoms, and management of chest pain, cardiac arrest, acute coronary syndrome, angina pectoris, myocardial infarction, aortic aneurysm/dissection, thromboembolism, heart failure, and hypertensive emergencies.
17. Apply fundamental knowledge of neurologic emergencies, including the anatomy, physiology, pathophysiology, assessment, and management of seizures, stroke/transient ischemic attack, status epilepticus, and headache.
18. Apply fundamental knowledge of gastrointestinal and urologic emergencies, including the anatomy and physiology, pathophysiology, and management of gastrointestinal bleeding, peritonitis, ulcerative diseases, renal dialysis, urinary catheter management, and kidney stones.
19. Apply fundamental knowledge of endocrine and hematologic emergencies including diabetes, sickle cell crisis, and clotting disorders.
20. Apply fundamental knowledge of immunologic emergencies including anaphylactic reactions, and allergic reactions.
21. Apply fundamental knowledge of toxicologic emergencies including carbon monoxide poisoning, nerve agent poisoning, inhaled poisons, ingested poisons, injected poisons, absorbed poisons, alcohol intoxication and withdrawal, and opiate toxidrome.
22. Apply fundamental knowledge of psychiatric emergencies, including behaviors that pose risk to the AEMT, patient, or others, basic principles of the mental health system, acute psychosis, suicidal risk, agitated delirium.
23. Apply fundamental knowledge of gynecologic emergencies including vaginal bleeding, sexual assault, and infections.
24. Apply fundamental knowledge of trauma emergencies, including the trauma score, transport decisions, multisystem trauma, and blast injuries.
25. Apply fundamental knowledge of bleeding and the pathophysiology of bleeding, fluid resuscitation, and management of the bleeding patient.
26. Apply fundamental knowledge of soft tissue injuries and trauma, including wounds, burns, chemicals in the eye and on the skin, and crush syndrome.
27. Apply fundamental knowledge of face and neck injuries, and diseases of the eyes, nose, and throat, management of life threats, spine trauma, penetrating neck trauma, laryngotracheal injuries, facial fractures, skull fractures, foreign bodies in the eyes, and dental trauma.
28. Apply fundamental knowledge of head and spine injuries, and traumatic brain injury, and spinal cord injury.
29. Apply fundamental knowledge of chest injuries including blunt vs penetrating mechanisms, open chest wounds, impaled objects, hemothorax, pneumothorax, cardiac tamponade, rib fractures, flail chest, commotion cordis, traumatic aortic disruption, pulmonary contusion, blunt cardiac injury, traumatic asphyxia.
30. Apply fundamental knowledge of abdominal and genitourinary injuries, including blunt vs penetrating mechanisms, evisceration, impaled objects, solid and hollow organ injuries, injuries to the external genitalia, vaginal bleeding due to trauma, sexual assault, vascular injury, retroperitoneal injuries.
31. Apply fundamental knowledge of orthopaedic injuries including open fractures, closed fractures, dislocations, amputations, upper and lower extremity orthopaedic trauma, sprains, strains, pelvic fractures, amputations, compartment syndrome.

32. Apply fundamental knowledge of environmental emergencies including submersion incidents, temperature-related injuries, near drowning, bites and envenomations, dysbarism, electrical injury, and radiation exposure.
  33. Apply fundamental knowledge of obstetrics and neonatal care, including normal delivery, vaginal bleeding in the pregnant patient, complications of pregnancy, assessment of the pregnant patient, abnormal delivery, third-trimester bleeding, spontaneous abortion and miscarriage, ectopic pregnancy, and preeclampsia/eclampsia.
  34. Apply fundamental knowledge of pediatric emergencies and management of the pediatric patient, and patients with special challenges, and trauma in pediatrics.
  35. Apply fundamental knowledge of geriatric patients and emergencies, disease processes, patients with special challenges, and trauma in geriatrics.
  36. Apply fundamental knowledge of patients with special challenges including neglect, abuse, homelessness, poverty, bariatrics, technology dependent, hospice/terminally ill, tracheostomy care, home care, sensory deficit/loss, and developmental disability.
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