

Coastline ROP – Career Technical Education

EMERGENCY MEDICAL TECHNICIAN

INDUSTRY SECTOR: Public Services Sector

PATHWAY: Emergency Response

CALPADS TITLE: Advanced Emergency Response (Capstone)

CALPADS CODE: 8422

HOURS:

Total	Classroom	Laboratory/CC/CVE
202	178	24

JOB TITLE	O*NET CODE	JOB TITLE	O*NET CODE
Occupational Health and Safety Technicians	29-9012.00	Municipal Firefighters	33-2011.01
Registered Nurses	29-1141.00	Emergency Medical Technicians and Paramedics	29-2041.00

COURSE DESCRIPTION:

This class prepares students for a career as an ambulance attendant or emergency room technician. EMT certification increases opportunity to obtain positions as a lifeguard, fire fighter, search and rescue team member, ski patrol, or law enforcement. Students train to assess the nature of emergencies and respond to medical emergency calls. They are able to recognize and use appropriate medical terminology. Twenty-four hours of ambulance ride-a-long or ER observation will be arranged. Upon completion, students will be eligible to take the National Registry EMT-Basic certification exam.

A-G APPROVAL: G

ARTICULATION:

College	Course Code
Santa Ana College	EMT 104 & 105

DUAL ENROLLMENT: None

PREREQUISITES:

Prerequisite
Emergency Medical Responder

METHODS OF INSTRUCTION

- Direct instruction
- Group and individual applied projects
- Multimedia
- Demonstration
- Field trips
- Guest speakers

STUDENT EVALUATION:

- Student projects
- Written work
- Exams
- Observation record of student performance
- Completion of assignment

INDUSTRY CERTIFICATION:

- EMT Certification

RECOMMENDED TEXTS:

- Emergency Care And Transportation Of The Sick And Injured, Enhanced Tenth Edition - American Academy of Orthopaedic Surgeons (AAOS)

PROGRAM OF STUDY:

- None identified

I.	INTRODUCTION AND ORIENTATION	CR	Lab/ CC	Standards
	• Demonstrate awareness of course objectives and competencies • Demonstrate an understanding of course requirements and student expectations • Demonstrate awareness of the industry standards and career opportunities	3	0	Academic: LS: 11-12.1, 11-12.2 CTE Anchor: Career Planning and Management: 3.1, 3.2 CTE Pathway: B1.1, B1.1, B9.7
II.	THE EMT ROLE, RESPONSIBILITIES AND EQUIPMENT	CR	Lab/ CC	Standards
	• Identify the service elements of the emergency medical system • Define emergency • Describe the role of the EMT and paramedic in California • Describe the scene survey and scene management issues • Describe the communications system for emergency services • Record and report services rendered accurately • List categories and designations of hospitals • Discuss issues of patient consent and refusal • Identify legal aspects of emergency care: abandonment, negligence, reporting abuse, confidentiality, and DNR orders	4	0	Academic: LS: 11-12.1, 11-12.2 CTE Anchor: Health and Safety: 6.2 Ethics and Legal Responsibilities: 8.1, 8.2 Leadership and Teamwork: 9.1 Demonstration and Application: 10.1 CTE Pathway: B1.1, B1.1, B1.2, B1.2, B1.4, B1.5, B9.1, B9.2, B9.4, B9.10
III.	HUMAN SYSTEMS AND PATIENT ASSESSMENT	CR	Lab/ CC	Standards
	• Use appropriate medical terminology • Identify anatomical areas of the body-topographical anatomy • Discuss the basic structure and function of the cell • Describe the make-up and function of tissues and organs • Discuss the functions of the body systems and the organs within each system • Define Homeostasis • Perform a patient assessment to include: scene assessment, mechanism of injury, and patient history • Perform a physical exam to include a primary and secondary survey • Describe and perform diagnostic signs: vital signs, skin signs, eye signs, level of consciousness (LOC), and chest auscultation	6	0	Academic: LS: 11-12.1, 11-12.2 LS : LS1, LS1.A, LS1.B CTE Anchor: Problem Solving and Critical Thinking: 5.1 Demonstration and Application: 10.1 CTE Pathway: B9.6, B9.7, B9.8, B9.5, B9.4, B9.2, B9.3, B9.1
IV.	CARDIOVASCULAR DISORDERS	CR	Lab/ CC	Standards

	• Demonstrate an understanding of the anatomy and physiology of the heart and circulatory system • Describe common disorders of the cardiac system: angina, myocardial infarct, CHF, cardiogenic shock, and hypertensive emergencies • Identify the causes of cardiac arrest • Demonstrate the techniques of CPR according to the American Heart Association including the use of the AED • Open an obstructed airway • Perform skills for adult and pediatric CPR	8	0	Academic: LS: 11-12.1, 11-12.2, 11-12.6 CTE Anchor: Communications: 2.3 Problem Solving and Critical Thinking: 5.1 Technical Knowledge and Skills: 11.1 CTE Pathway: B9.1, B9.3, B9.2, B9.8, B9.6
V.	RESPIRATORY DISORDERS	CR	Lab/CC	Standards
	• Demonstrate an understanding of the anatomy and physiology of the Respiratory System • Describe the mechanics of the respiratory cycle and the exchange of gases in the lungs • Discuss common, non-traumatic disorders for dyspnea: asthma, chronic obstructive pulmonary disease, pulmonary edema, inhalation of toxic substances, pulmonary embolism, and hyperventilation • Discuss common traumatic disorders for dyspnea: rib fracture, flail chest, pneumothorax, hemopneumothorax, and tension pneumothorax • Identify the signs of airway obstruction and respiratory arrest • Use airway adjuncts • Use a bag valve mask • Suction the patient • Provide oxygen therapy	7	0	Academic: LS: 11-12.1 CTE Anchor: Communications: 2.3 Problem Solving and Critical Thinking: 5.1 Technical Knowledge and Skills: 11.1 CTE Pathway: B9.6, B9.8, B9.3, B9.1, B9.2
VI.	SHOCK AND HEMORRHAGE	CR	Lab/CC	Standards
	• Identify the characteristics of blood volume, flow, and pressure when patients suffer from shock or hemorrhage • Define shock and describe the symptoms of shock • Demonstrate an understanding of how the body reacts to various types of bleeding; internal, external, arterial, venous and capillary • Describe the treatment to stop a hemorrhage • Apply pressure dressings • State the parameters for applying a tourniquet • Identify the pressure points used to stop bleeding • Perform vital signs • Differentiate between normal vital signs and what is seen when bleeding occurs • Perform a patient assessment • Discuss the EMT's responsibilities when assisting the paramedic with antishock garments or with IV set up	6	0	Academic: LS: 11-12.1 PS : PS2.C, PS2 LS : LS1, LS1.A CTE Anchor: Problem Solving and Critical Thinking: 5.3 Technical Knowledge and Skills: 11.1 CTE Pathway: B9.3, B9.2, B9.4, B9.1, B9.8, B9.6, B9.10, B9.9
VII.	FRACTURES AND SPLINTING	CR	Lab/CC	Standards

	• Demonstrate an understanding of the anatomy and physiology of the skeletal system • Name types of fractures and describe the signs and symptoms seen with each type • Practice splinting techniques • Immobilize the specific fractures • Provide care for dislocations • Lift and move patients with fractures according to correct procedures	10	0	Academic: LS: 11-12.1 PS : PS2.A, PS2, PS2.C LS : LS1.A, LS1 CTE Anchor: Technical Knowledge and Skills: 11.1 CTE Pathway: B9.8, B9.9, B9.10, B9.6, B9.1, B9.4, B9.3, B9.2
VIII.	HEAD AND SPINAL INJURIES	CR	Lab/CC	Standards
	• Demonstrate an understanding of the anatomy and physiology of the head and nervous system • Recognize signs, symptoms, and injuries to the head and spine • Discuss disorders that alter the level of consciousness: coma, seizures, stroke, syncope • Immobilize the patient with an injury to the head or spine • Log roll a patient • Apply a cervical collar • Apply a head bed • Demonstrate correct use of a backboard • Describe correct removal of a helmet	10	0	Academic: LS: 11-12.1, 11-12.2 PS : PS2, PS2.A, PS2.C CTE Anchor: Communications: 2.3, 2.4 Problem Solving and Critical Thinking: 5.1 Health and Safety: 6.5 Technical Knowledge and Skills: 11.1 CTE Pathway: B9.2, B9.3, B9.1, B9.4, B9.6, B9.10, B9.8, B9.9
IX.	MAJOR WOUNDS	CR	Lab/CC	Standards
	• Demonstrate an understanding of the anatomy and physiology of the skin • Identify common soft tissue injuries • Discuss common injuries and their treatments for the skin, eye, chest, abdomen and genitalia	12	0	Academic: LS: 11-12.1, 11-12.2 LS : LS1.A, LS1 CTE Anchor: Technical Knowledge and Skills: 11.1 CTE Pathway: B9.9, B9.10, B9.6, B9.8, B9.3, B9.4, B9.1, B9.2
X.	MEDICAL EMERGENCIES	CR	Lab/CC	Standards
	• Name the most commonly seen injuries, describe how they are treated and relate important aspects of care for each of the following: ◦ Cardiac emergencies ◦ Respiratory emergencies ◦ Stroke ◦ Unconscious patients	24	0	Academic: LS: 11-12.1, 11-12.2 RLST: 11-12.2, 11-12.3, 11-12.4 CTE Anchor:

	◦ Diabetes ◦ Seizures ◦ Drug and alcohol use ◦ Acute abdomen ◦ Psychological and emotional emergencies ◦ Drowning and diving emergencies • Define critical incidence stress • Define communicable disease and the precautions taken with patients who have a communicable disease • Name and describe the stages of death and dying			Communications: 2.1, 2.2, 2.3, 2.4, 2.5 Problem Solving and Critical Thinking: 5.1, 5.2 Health and Safety: 6.3, 6.4, 6.6 Leadership and Teamwork: 9.3 Demonstration and Application: 10.1 Technical Knowledge and Skills: 11.1 CTE Pathway: B1.1, B1.2, B4.1, B4.2, B4.3, B5.1, B9.1, B9.2, B9.4, B9.3, B9.5, B9.8, B9.7, B9.6, B9.10, B9.11, B9.9
XI.	EMERGENCY CHILDBIRTH	CR	Lab/CC	Standards
	• Explain the conditions for a normal childbirth • List the signs and symptoms of an impending emergency birth • Discuss the appropriate treatment of the mother and newborn during and after the birth • Demonstrate the procedure for breech birth, limb presentation, and prolapsed umbilical cord through the use of manikins • Name the common causes of bleeding during pregnancy • Discuss pre-delivery emergency situations seen in the field	5	0	Academic: LS: 11-12.1, 11-12.2, 11-12.3 CTE Anchor: Communications: 2.1, 2.2, 2.3, 2.4, 2.5 Problem Solving and Critical Thinking: 5.1, 5.2 Health and Safety: 6.3, 6.4, 6.5, 6.6 Leadership and Teamwork: 9.1, 9.2, 9.3 Technical Knowledge and Skills: 11.1, 11.2 CTE Pathway: B1.4, B1.1, B4.1, B9.6, B9.5, B9.3, B9.4, B9.2, B9.1, B9.9, B9.8, B9.10, B9.7, B9.11
XII.	MOVING THE SICK AND INJURED	CR	Lab/CC	Standards
	• Position and move the patient from the scene to the ambulance • Perform different lifts and carries used to move patients • Secure a patient to a backboard for transport	13	0	Academic: LS: 11-12.1, 11-12.2 PS : PS2 CTE Anchor: Communications: 2.1, 2.2, 2.3, 2.4 Health and Safety:

				6.3, 6.4, 6.5, 6.6 Ethics and Legal Responsibilities: 8.3, 8.4 CTE Pathway: B1.1, B4.6, B5.1, B9.2, B9.1, B9.3, B9.4, B9.5, B9.7, B9.8, B9.6, B9.11, B9.10, B9.9
XIII.	ENVIRONMENTAL INJURIES	CR	Lab/CC	Standards
	- Name the common causes of burns - Explain the Rule of Nines - Demonstrate an understanding of the treatment of heat and cold injuries, poisons, stings and bites, anaphylactic reactions, and snake bites	13	0	Academic: LS: 11-12.1, 11-12.2 CTE Anchor: Communications: 2.1, 2.2, 2.3 Health and Safety: 6.3, 6.4, 6.5, 6.6 Technical Knowledge and Skills: 11.1 CTE Pathway: B1.1, B4.6, B4.2, B4.1, B5.1, B9.1, B9.5, B9.4, B9.3, B9.2, B9.9, B9.10, B9.11, B9.6, B9.7, B9.8
XIV.	HAZARDOUS MATERIALS	CR	Lab/CC	Standards
	- Define hazardous materials - Identify various types of hazardous materials - Demonstrate the use of the DOT Emergency Response Guide - Describe the DOT placards for hazardous materials - Describe the NFPA 704 marking system	8	0	Academic: LS: 11-12.1, 11-12.2 SEP : 8 CTE Anchor: Communications: 2.1, 2.2, 2.3 Problem Solving and Critical Thinking: 5.1 Health and Safety: 6.1, 6.3, 6.4, 6.5, 6.6 Technical Knowledge and Skills: 11.1 CTE Pathway: B1.1, B1.4, B4.1, B4.3, B4.2, B4.6, B7.1, B7.2, B7.3, B7.4, B8.7, B9.1, B9.2, B9.3, B9.4, B9.5, B9.8, B9.7, B9.6, B9.10, B9.11, B9.9

XV.	MULTIPLE VICTIM INCIDENT/EXTRICATION AND RESCUE	CR	Lab/ CC	Standards
	• Discuss the procedure for implementing the START triage system during a multiple victim incidents • Demonstrate how to use the MET tag • Identify a multiple victim accident and the parameters that determine an MVI	13	0	Academic: LS: 11-12.1, 11-12.2 CTE Anchor: Communications: 2.1, 2.2, 2.3 Health and Safety: 6.3, 6.4, 6.5, 6.6 Technical Knowledge and Skills: 11.1 CTE Pathway: B1.4, B1.1, B4.1, B4.6, B4.2, B4.3, B5.1, B9.1, B9.5, B9.6, B9.4, B9.3, B9.2, B9.9, B9.10, B9.7, B9.8, B9.11
XVI.	PEDIATRIC EMERGENCIES	CR	Lab/ CC	Standards
	• Discuss how to approach an ill child and how to speak to the parents • Describe common pediatric illnesses: croup, asthma, bronchitis, SIDS, seizures, meningitis, communicable diseases, and arrest • Describe common trauma emergencies: abuse, near drowning, and foreign body aspiration	12	0	Academic: LS: 11-12.1, 11-12.2 CTE Anchor: Communications: 2.1, 2.2, 2.3 Health and Safety: 6.3, 6.4, 6.5, 6.6 Technical Knowledge and Skills: 11.1 CTE Pathway: B1.1, B4.2, B4.3, B9.1, B9.2, B9.3, B9.4, B9.5, B9.8, B9.6, B9.7, B9.9, B9.10
XVII.	AMBULANCE TRANSPORT	CR	Lab/ CC	Standards
	• Discuss the maintenance and restocking of the ambulance • Discuss safe driving techniques during transport • Discuss local protocol for transport of patients • Discuss considerations for transport of patients with tubing	2	0	Academic: LS: 11-12.1, 11-12.2 CTE Anchor: Communications: 2.1, 2.2, 2.3 Health and Safety: 6.3, 6.4, 6.5, 6.6 Technical Knowledge and Skills: 11.1 CTE Pathway: B1.1, B1.2, B4.1, B4.2, B4.3, B4.6, B9.6, B9.5, B9.3, B9.4, B9.2, B9.1, B9.10, B9.9, B9.8,

				B9.7, B9.11
XVIII.	INTERNSHIP	CR	Lab/ CC	Standards
	• Participate in a hospital internship • Participate in an ambulance ride-along	0	24	Academic: LS: 11-12.1, 11-12.2, 11-12.4 RLST: 11-12.3, 11-12.9 CTE Anchor: Communications: 2.1, 2.2, 2.3, 2.4, 2.5 Career Planning and Management: 3.1 Problem Solving and Critical Thinking: 5.1 Health and Safety: 6.3, 6.4, 6.5, 6.6 Leadership and Teamwork: 9.3 Demonstration and Application: 10.2 Technical Knowledge and Skills: 11.1 CTE Pathway: B1.4, B1.2, B1.1, B3.4, B3.6, B4.6, B4.2, B4.3, B9.1, B9.2, B9.3, B9.5, B9.4, B9.8, B9.7, B9.6, B9.9, B9.10, B9.11
XIX.	EMPLOYMENT LITERACY	CR	Lab/ CC	Standards
	• Identify available positions in the industry through the use of the Internet • Complete an application form correctly • Prepare a written resume • Participate in a simulated employment interview • Prepare a portfolio	10	0	Academic: LS: 11-12.2, 11-12.3, 11-12.6 RLST: 11-12.2 WS: 11-12.1, 11-12.1d, 11-12.1e, 11-12.2f, 11-12.2, 11-12.5, 11-12.6 CTE Anchor: Communications: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Career Planning and Management: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.9 Technology: 4.1 Problem Solving and Critical Thinking: 5.1, 5.2

				Ethics and Legal Responsibilities: 8.3, 8.4, 8.7 CTE Pathway: B3.6, B3.7, B3.9, B6.3
XX.	PERSONAL SKILLS RELATED TO EMPLOYMENT	CR	Lab/CC	Standards
	• Demonstrate promptness, attend class regularly, and follow absence notification procedures • Develop and maintain acceptable working relations • Demonstrate the ability to manage time wisely • Demonstrate a positive and cooperative attitude • Demonstrate values of honesty and integrity • Demonstrate respect for others • Dress in a professional manner according to industry standards • Demonstrate appropriate personal hygiene/grooming and dress • Demonstrate responsibility by exerting a high level of effort and working toward a goal	3	0	Academic: LS: 11-12.1, 11-12.2, 11-12.3, 11-12.4, 11-12.5, 11-12.6 RSL: 11-12.4 WS: 11-12.10, 11-12.5, 11-12.6 CTE Anchor: Communications: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Problem Solving and Critical Thinking: 5.2, 5.3 Health and Safety: 6.2 Ethics and Legal Responsibilities: 8.3, 8.4, 8.5, 8.6, 8.7 Leadership and Teamwork: 9.2, 9.3 Technical Knowledge and Skills: 11.2, 11.5 CTE Pathway: B1.1
XXI.	INTERPERSONAL SKILLS AND GROUP DYNAMICS	CR	Lab/CC	Standards
	• Demonstrate the ability to work as a member of a team • Identify proper procedures for handling harassment • Demonstrate leadership skills by working independently, making appropriate decisions, working well with others, and accepting constructive criticism • Demonstrate the ability to accept and work with individuals from various cultures	3	0	Academic: LS: 11-12.1, 11-12.2, 11-12.3, 11-12.4, 11-12.5, 11-12.6 CTE Anchor: Communications: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Leadership and Teamwork: 9.1, 9.2, 9.3, 9.4 Demonstration and Application: 10.4 CTE Pathway: B1.1, B9.10
XXII.	THINKING AND PROBLEM-SOLVING SKILLS	CR	Lab/CC	Standards

	• Utilize problem-solving techniques • Understand logical reasoning • Demonstrate creative thinking • Demonstrate the ability to make sound decisions • Demonstrate the ability to interpret information correctly	3	0	Academic: RLST: 11-12.3 CTE Anchor: Communications: 2.1 Problem Solving and Critical Thinking: 5.1, 5.2, 5.3, 5.4 CTE Pathway: B1.1
XXIII.	COMMUNICATION SKILLS	CR	Lab/ CC	Standards
	• Demonstrate effective verbal and written skills • Read technical journals and write technical reports using appropriate terminology • Listen attentively, follow directions, and relay directions to others • Demonstrate the ability to research and retrieve information	3	0	Academic: LS: 11-12.1, 11-12.2, 11-12.3, 11-12.4, 11-12.5, 11-12.6 RSL: 11-12.2, 11-12.4 CTE Anchor: Communications: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 CTE Pathway: B9.4, B9.9, B9.10, B9.11