LOS MEDANOS COLLEGE

ARTICULATION AGREEMENT **DATE DRAFTED:** December 14, 2020
VALID ACADEMIC YEARS: 2020-21 & 2021-22

LMC COURSE: EMS-009 "Emergency Medical Responder"

HIGH SCHOOL COURSE: Health Science Emergency Medicine

School: Mt. Diablo High School
Address: 2450 Grant Street, Concord, CA 94520

A. COLLEGE COURSE DESCRIPTION:

This course is an introductory course to medical careers with an emphasis on emergency medical services. Students who successfully complete this course will obtain an American Heart Association CPR/Basic Life Support (BLS) Certification card. EMS-009 meets and exceeds the requirements for the California Emergency Services Agency First Aid Standards for Public Safety Personnel, which is the minimum required level of medical training required for CAL-FIRE seasonal personnel, Police Officers, Life Guards and any other occupation classified under Public Safety in the State of California. Students who successfully complete EMS 009 are eligible to apply for employment in a diverse array of positions which include public safety as well as many others, some examples of these occupations are: lifeguards, public safety officers, police officers, child care providers, security guards, coaches and for positions with California Department of Forestry and Fire Protection as seasonal wildland Firefighters.
In addition, students will develop an educational pathway into the EMT, paramedic, fire technology, nursing, physician assistants and other Allied Health occupations.** This course has mandatory lab fees, this course meets the prerequisite for EMS 010 since we issue a CPR BLS card upon successful completion of EMS 009.

B. UNITS: 4

C. PRE-REQUISITES: NA

D. REQUIRED CONTENT & COMPETENCIES (PERFORMANCE OBJECTIVES) FOR ARTICULATION:

Unit One: Orientation: Students will identify the personal characteristics, time involved, and education required for careers in medical field. They will understand, apply, and evaluate classroom and workplace policies and procedures used in accordance with federal, state, and local safety and environmental regulations
Unit Two: Introduction to EMS Systems: Students will understand and evaluate the responsibilities of a first responder and the components of the EMS activation. They will apply fundamental knowledge of the EMS system to the provision of emergency care. The lesson will provide the students with a road map for learning the skill and knowledge domains of the EMS systems.
Unit Three: Legal and Ethical Issues: Students will explore the scope of practice, ethical responsibilities, advance directives, consent, refusals, abandonment, negligence, duty to act, confidentiality, medical identification symbols, and crime scenes. They will recognize the importance of medical identification insignia in treating the patient and state the scope of care and standard of care for a first responder.
Unit Four: Well Being of the First Responder: Students will understand and evaluate the personal, emotional, and physical safety requirements for a first responder. This unit covers the emotional aspects of emergency medical care, stress management, body substance isolation (BSI), personal protection equipment (PPE), and safety precautions that can be taken prior to performing the role of a first responder. Students will identify the signs and symptoms of infection and explain the process of inflammation as a defense mechanism.
Unit Five: Communication and Interpersonal Skills: Students will understand and apply effective communication skills and professional guidelines. Students will discuss and demonstrate techniques to remove barriers in communication and explain the importance of nonverbal communication such as gestures, facial expressions,

posture, body language, and touch. Research will help students identify and analyze factors and strategies to consider for therapeutic communication with patients.

Unit Six: Academic Proficiency: Students will understand and apply problem solving, critical thinking, and academic proficiency skills. They will recognize the importance of effective reading, writing, speaking, and computational skills. This unit will allow students to review the mechanics of grammar such as sentence construction, subject-verb agreement, and punctuation. Students will make observations and use the scientific method to create a hypothesis on several stringent medical issues.

Unit Seven: The Human Body: Understanding human anatomy and physiology prepares students to evaluate recommended treatments, critically review advertisements and reports in the popular literature, and accurately discuss the human body with health professionals. Students will know the structure and function of the human body and understand how the body responds to a stimulus. The anatomy and physiology of the human body will provide students with the basis for understanding diseases. This unit serves to introduce the students to the basic functions of living organisms, reviews the concept of homeostasis and introduces positive and negative feedback systems in response to homeostatic regulation. Students will use anatomical terms to describe body sections, body regions, and relative positions. Homeostatic balance, the relationship between structure and function, and the interrelationships between body systems are a focus throughout the chapter.

Unit Eight: Medical Terminology: Students will understand and apply the definitions, abbreviations, symbols, and terminology rules that are used in emergency medical care. They will demonstrate how word parts work together to form medical terms and use the many aids to help reinforce the word-building skills while mastering them. Learning medical words is similar to learning a new language. The medical language is logical in that each term, complex or simple, can be broken down into its basic component parts. Students will build medical words for surgical, diagnostic, and pathological conditions. They will write the meaning of the word parts and use them to build and analyze words.

Unit Nine: Vital Signs and Patient Assessment: To perform an adequate patient assessment, the First Responder must be familiar with the normal anatomy of the human body and topographical terminology. This information will provide a solid cornerstone on which the First Responder can build the essentials of quality patient assessment and management. Students will understand the clinical protocol in assessing the vital signs. Adequate blood pressure is necessary to maintain proper circulation and perfusion of the vital organ cells.

Students will recognize that a decrease in blood pressure may indicate loss of blood, loss of vascular tone, or a cardiac pumping problem. Students will also recognize that an increase in blood pressure may lead to fatal conditions even if the body's defenses act to reduce the elevation.

Unit Ten: Lifting, Moving, and Positioning Patients: Students will understand that both the patient's condition and the environment in which he/she is found determine moving a patient. The determination of how to move the patient is made by considering the complaint, the severity of the condition and the location.

Students will identify, apply, and evaluate techniques used to lift, move, and position patients. This chapter provides students with knowledge of body mechanics, lifting and carrying techniques, and principles of moving patients.

Unit Eleven: Airway Management: Students will understand airway anatomy and physiology, how to maintain an open airway, pulmonary resuscitation, variations for infants and children, as well as patients with laryngectomies. The use of airways, suction equipment, and barrier devices will help students differentiate between medical equipment required based on the patient's medical condition. Students will recognize and apply the techniques for proper airway management.

Unit Twelve: Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED): Students will understand, apply, and evaluate basic CPR and AED procedures. The lesson provides the First Responder with the knowledge and skills of chest compressions and ventilations for adults, children, and infants. Students will detect skills that will enhance their ability to evaluate a scene for potential hazards, to determine the number of patients, whether additional help is necessary, and to evaluate the mechanism of injury or nature of illness. This lesson provides the knowledge and skills to properly perform the initial assessment.

The students will learn about forming a general impression, determining responsiveness, and assessing the airway, breathing, and circulation. Students will discuss how to determine priorities of patient care. They will acquire the knowledge and skills required to continue the assessment and management of the ill or injured patient.

Unit Thirteen: Medical Emergencies: Students will interpret the recognition and management of general medical complaints, seizures, altered mental status, environmental emergencies, behavioral emergencies, psychological crisis, and typical patient situations. While it is important for students to make the distinction between different medical emergencies, it is equally important for students to remember that patients may have a combination of medical conditions. Students will understand that some medical emergencies are caused by psychological or behavioral problems. Students will also recognize that many emergency situations can be very challenging and therefore a good preparation is required to provide efficient patient care.

Unit Fourteen: Bleeding, Shock, and Soft-Tissue Injuries: Students will recognize and apply techniques for different types of bleeding, shock, and soft tissue injuries. The unit reviews the cardiovascular system, describes the care of the patient with internal and external bleeding, and teaches the management of soft tissue injuries and burns. Techniques of dressing and bandaging wounds will also be taught in this unit. Students will review the anatomy of the musculoskeletal system. They will present information about injuries of the skeletal system in a professional manner. A review of the anatomy of the nervous system will be done prior to the demonstration of patient care. Students will discuss the injuries to the spine and head, including the mechanism of injury, signs and symptoms of injury, and assessment

Unit Fifteen: Pregnancy and Childbirth: Students will understand and evaluate childbirth, anatomy of pregnancy, and the stages of labor. Reviews of the anatomical and physiological changes that occur during pregnancy will be major part of the chapter. Throughout the lesson students will demonstrate deliveries and newborn care. Students will describe the structures and functions associated with the reproductive system as well as conditions that may cause homeostatic imbalance. The reproductive system ensures the continuity of the species by producing offspring. It also plays essential roles in the development of the structural and functional

differences between males and females and influences human behavior. Students will identify the care required during pregnancy, childbirth, and postpartum period

Unit Sixteen: Infants and Children: Pediatric patients have their own set of health-related problems that are unique to their population. Similarly, many problems that are common in adults do not occur in children and vice versa. Students will recognize that children are not small adults and their treatment can be a challenge for healthcare providers. Students will understand the assessment and treatment of infants and children. They will present information concerning anatomical differences in infants and children, and discuss common medical and trauma situations.

Unit Seventeen: EMS Operations Gaining Access and Hazards on Scene: Students understand, apply, and evaluate access techniques and hazard awareness. The unit presents an overview of the knowledge needed to function as a First Responder in the out-of-hospital environment. In addition it provides the First Responder student with an overview of extrication and rescue operations and information on hazardous materials, mass casualty situations, and basic triage. Students will recognize and apply basic disaster medical operations and multi-casualty incident management.

Unit Eighteen: Pharmacology: Administering medication is very serious since the appropriate use of a medication can alleviate pain and improve patient's well-being. If used inappropriately, medication can cause harm and even death. Students will learn that acting without understanding how medications work is to place patients in danger. They will explore and evaluate the use of medications by a first responder. In this unit students will understand the importance of becoming familiar with the "street" names of commonly used and abused drugs.

Unit Nineteen: College and Career Readiness Knowledge and Skills: Students will understand and evaluate the skills, knowledge, and attitudes needed to locate, obtain, and maintain employment in healthcare careers and how to successfully apply for and succeed in postsecondary education. On completion of this unit the students will be able to establish goals for self-improvement and lifelong education/ training and discuss the function of professional healthcare organizations. This unit will help students design sample résumés and cover letters and demonstrate appropriate interviewing techniques.

E. METHODS FOR END OF COURSE ASSESSMENT:

ASSESSMENTS INCLUDING METHODS and/or TOOLS

- Formative Assessments
- Summative Assessments
- Self Assessments

- Multiple Choice exams
- Open-ended questions exams
- SOAP notes taking
- PERRLA evaluations
- Glasgow Coma evaluation
- EMR Psychomotor Skills evaluation
- EMT Patient Assessment Management Medical
- EMT Patient Assessment Flow chart
- EMT Scene Size-up and Primary Assessment
- NREMT Patient Assessment / Management Medical Skill Sheet
- Exam View Test Bank

F. TEXTBOOKS OR OTHER SUPPORTING MATERIALS

- Emergency Medical Responder: Your First Response in Emergency Care Includes Navigate 2 Essentials Access Sixth Edition
- American Academy of Orthopaedic Surgeons (AAOS Primary First Responder Bergeron, J., Gloria Bizjak, and Chris La Baudour Prentice Hall 7th edition
- Taber's Cyclopedia Medical Dictionary various F.A.
- Health Science Fundamentals Badash, Shirley A. and Chesebro, Doreen S. Pearson Education 2009
- Essentials of Anatomy & Physiology Seeley, Rod R., Stephens, Trent D., Tate, Philip McGraw Hill 6th Edition
- Highlights of the 2015 "Guidelines for CPR and ECC" American Heart Association American Heart Association 2015
- Medical Terminology for Health Professions Ehrlich, Ann and Schroeder, Carol L. Thompson Delmar Learning 4th edition

G. PROCEDURES AND/OR CRITERIA FOR COURSE ARTICULATION:

1. Complete the **Health Science Emergency Medicine** course at Mt. Diablo High School with a grade of "B" or better.
2. Receive a "B" or better on the agreed upon college/high school final exam procedure.
3. Be recommended for credit by the high school teacher.
4. Apply for admission at Los Medanos College.
5. Register for CATEMA for electronic recommendation of college credit **within the academic year in which credit was earned.**
6. Upon completion of the above, the student will receive on his/her LMC and CCCCD (California Community College District) transcript the units of credit for LMC's EMS-009 "Emergency Medical Responder" course.
7. College transcripts will reflect the **FINAL EXAM GRADE** earned and will be notated as *Credit by Exam.

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COLLEGE SIGNATURES

Natalie Hannum
Natalie Hannum (Feb 9, 2021 18:54 PST)

Natalie Hannum — Date
LMC Vice President of Instruction

Nikki Moultrie
Nikki Moultrie (Feb 9, 2021 15:10 PST)

Nikki Moultrie — Date
LMC Dean of Career Education & Social Sciences

Paul Cutino (Feb 9, 2021 14:05 PST)

Paul Cutino — Date
LMC EMS Department Chair

Gretchen Muetterties-Medel
Gretchen Muetterties-Medel (Feb 9, 2021 10:01 PST)

Gretchen Medel — Date
LMC EMS Faculty

HIGH SCHOOL/ROP/DISTRICT SIGNATURES

Lorne M. Barbosa (Apr 12, 2021 08:20 PDT)

Lorne Barbosa — Date
Principal, Mt. Diablo High School

Adam Clark
Adam Clark (Apr 12, 2021 11:10 PDT)

Dr. Adam Clark — Date
MDUSD Superintendent

David Pintado
David Pintado (Apr 12, 2021 10:30 PDT)

David Pintado — Date
Faculty, Mt. Diablo High School

MDHS EMS-009 2020-22

Final Audit Report 2021-04-12

Created:	2020-12-16
By:	Colleen Grim (cgrim@losmedanos.edu)
Status:	Signed
Transaction ID:	CBJCHBCAABAAlhzjG0MXXz9Z_KNFVZbZ3KpBjWDmvHi8

"MDHS EMS-009 2020-22" History

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2020-12-16 - 10:42:56 PM GMT- IP address: 99.161.170.246

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2020-12-16 - 10:44:05 PM GMT

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2020-12-16 - 11:07:08 PM GMT- IP address: 73.92.128.229

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2021-01-27 - 4:31:58 PM GMT- IP address: 104.47.70.126

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2021-02-08 - 11:45:39 PM GMT- IP address: 104.47.58.126

Colleen Grim (cgrim@losmedanos.edu) replaced signer gmedel@losmedanos.edu with Gretchen Muetterties-Medel (gmedel937@email.4cd.edu)
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2021-02-09 - 11:10:55 PM GMT

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2021-02-10 - 2:54:43 AM GMT

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2021-04-12 - 3:18:28 PM GMT- IP address: 66.249.84.103

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