

# Paramedic

## Overview

Paramedicine is an allied health specialty whose practitioners respond to emergencies before a patient reaches a hospital, rendering basic and advanced medical treatment before and during transport to a medical facility. Classroom, clinical and field internship training prepares paramedics to assess and treat a wide variety of medical emergencies. The knowledge, skills and experience gained through the 12-month paramedic program allows students to meet the responsibilities outlined in the Department of Transportation's Emergency Medical Services Education Standards.

The goal of the ARC program is to prepare individuals to render pre-hospital advanced life support within an organized Emergency Medical Services (EMS) system.

### Program Student Results/Outcomes and Positive Placement Data

- 2016-2018 National Registry Written - Cognitive Exam Results 100% (National Registry of Emergency Medical Technicians)
- 2016-2018 National Registry Psychomotor - Skills Exam Results 100% (National Registry of Emergency Medical Technicians)
- 2015-2017 Program Retention Average 84.3% (Los Rios District Registration & Roster database)
- Positive Placement Indicators 100% working in the industry or related industry. (California Community College Chancellor's office Launchboard database Gold Star awards)

The American River College Paramedic Program is accredited by the [Commission on Accreditation of Allied Health Education Programs \(https://www.caahep.org/\)](https://www.caahep.org/) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Profession (CoEMSP)

## Roadmaps

Road maps lay out all of the courses you need to take for a given degree or certificate.

[Get a Road map! Explore Ways to Complete These Programs \(/academics/arc-program-road-maps\)](#)

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## Associate Degree

### A.S. in Paramedic

Paramedicine is an allied health specialty whose practitioners respond to emergencies before a patient reaches a hospital, rendering basic and advanced medical treatment before and during transport to a medical facility. Classroom, clinical and field internship training prepares paramedics to assess and treat a wide variety of medical emergencies. The knowledge, skills and experience gained through the paramedic program allows students to meet the responsibilities outlined in the Department of Transportation's Emergency Medical Services Education Standards.

Catalog Date: January 1, 2021

### Degree Requirements

COURSE CODE	COURSE TITLE	UNITS
BIOL 102	Essentials of Human Anatomy and Physiology (4)	4 - 10
or [ BIOL 430	Anatomy and Physiology (5)	
and BIOL 431 ]	Anatomy and Physiology (5)	
PMED 105	Prehospital Pharmacology (0.5)	0.5 - 1.5
or NURSE 320	Medical Dosage Calculations (1.5)	
PMED 110	Introduction to Advanced Prehospital Care	12
PMED 120	Clinical Internship	7
PMED 130	Prehospital Field Internship	14
Total Units:		37.5 - 44.5

*The Paramedic Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.*

### Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Graduation from an accredited high school in the United States, or successful completion of General Education Development (GED) or the California High School Proficiency Exam (CHSPE).
- Students with a high school diploma from a school outside the United States must have transcripts evaluated by an approved independent agency. Such cases will be evaluated on an individual basis.
- A cumulative college GPA of 2.0 and a grade of "C" or better in BIOL 102, or BIOL 430 and BIOL 431, or other college human anatomy and physiology course with a lab which includes all human systems; a grade of "C" or better in NURSE 320 or PMED 105 or equivalent course covering basic pharmacology and drug calculations.
- Current curriculum planning summary sheet within the semester in which the pre-enrollment packet is being submitted.
- Completion of the program application (pre-enrollment packet) and submittal prior to the deadline.
- Current certification as an Emergency Medical Technician-Basic and approximately one year verified EMS experience or a minimum of 280 verifiable EMS patient encounters acting as a team lead. See program website for examples of commonly acceptable experience and a patient encounter tracking form.

## Enrollment Process

Eligible students are selected for the program according to the following steps:

- Pre-enrollment applications to the program may be obtained from the Health and Education Division office or at <http://arc.losrios.edu/edhealth/paramed.html>. Applications for Spring admission will be available in September and must be submitted to the division office no later than the first Friday in December by 4:00 p.m. Please refer to the Paramedic Information Sheet for the most current information.
- Only students who meet the educational requirements and follow the pre-enrollment procedures will be considered for the program. Meeting all of these requirements does not guarantee enrollment in the program.
- Class size is limited. If the pre-enrollment pool is greater than the program can accept, students are chosen based on a computerized random selection process from among the qualified candidates.
- Students accepted into the Paramedic program are required to have a physical examination, approved immunizations, drug screen, background check, program uniform, required learning materials, and malpractice insurance prior to deadlines set by the program.

## Student Learning Outcomes

Upon completion of this program, the student will be able to:

- synthesize pre-arrival information and initial assessment findings to classify patient acuity.
- utilize support personnel and equipment to maximize scene and patient management.
- diagnose patient conditions using auditory, tactile and visual senses.
- correlate signs and symptoms of common diseases to emergency patients and their primary complaint.
- formulate competent treatment plans for medical or trauma patients.
- report assessment findings, diagnosis, and treatment plans to appropriate health professionals.
- develop and implement strategies to strengthen personal empathy and sympathy for prehospital patients.
- apply ethical practices during all phases of an emergency medical response.
- demonstrate advanced life support skills competency as set by the National Registry of Emergency Medical Technicians.
- assess scene and personal safety before, during and after each emergency response.
- compose accurate, timely and specific patient care reports in accordance with local, regional and state documentation standards.

## Career Information

The ARC Paramedic program is designed to prepare the student for licensure as a paramedic, working for a fire department, rescue squad, private provider, industry, clinic or hospital.

## Certificate of Achievement

## Paramedic Certificate

Paramedicine is an allied health specialty whose practitioners respond to emergencies before a patient reaches a hospital, rendering basic and advanced medical treatment before and during transport to a medical facility. Classroom, clinical and field internship training prepares paramedics to assess and treat a wide variety of medical emergencies. The knowledge, skills and experience gained through the paramedic program allows students to meet the responsibilities outlined in the Department of Transportation's Emergency Medical Services Education Standards.

Catalog Date: January 1, 2021

## Certificate Requirements

COURSE CODE	COURSE TITLE	UNITS
BIOL 102	Essentials of Human Anatomy and Physiology (4)	4 - 10
or [ BIOL 430 and BIOL 431 ]	Anatomy and Physiology (5)	
PMED 105	Prehospital Pharmacology (0.5)	0.5 - 1.5
or NURSE 320	Medical Dosage Calculations (1.5)	
PMED 110	Introduction to Advanced Prehospital Care	12
PMED 120	Clinical Internship	7
PMED 130	Prehospital Field Internship	14
Total Units:		37.5 - 44.5

## Enrollment Eligibility

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- Students with a high school diploma from a school outside the United States must have transcripts evaluated by an approved independent agency. Such cases will be evaluated on an individual basis.
- A cumulative college GPA of 2.0 and a grade of "C" or better in BIOL 102, or BIOL 430 and BIOL 431, or other college human anatomy and physiology course with a lab which includes all human systems; a grade of "C" or better in NURSE 320 or PMED 105 or equivalent course covering basic pharmacology and drug calculations.
- Current curriculum planning summary sheet within the semester in which the pre-enrollment packet is being submitted.
- Completion of the program application (pre-enrollment packet) and submittal prior to the deadline.
- Current certification as an Emergency Medical Technician-Basic and approximately one year verified EMS experience or a minimum of 280 verifiable EMS patient encounters acting as a team lead. See program website for examples of commonly acceptable experience and a patient encounter tracking form.

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- Only students who meet the educational requirements and follow the pre-enrollment procedures will be considered for the program. Meeting all of these requirements does not guarantee enrollment in the program.

- Class size is limited. If the pre-enrollment pool is greater than the program can accept, students are chosen based on a computerized random selection process from among the qualified candidates.
- Students accepted into the Paramedic program are required to have a physical examination, approved immunizations, drug screen, background check, program uniform, required learning materials, and malpractice insurance prior to deadlines set by the program.

## Student Learning Outcomes

Upon completion of this program, the student will be able to:

- synthesize pre-arrival information and initial assessment findings to classify patient acuity.
- utilize support personnel and equipment to maximize scene and patient management.
- diagnose patient conditions using auditory, tactile and visual senses.
- correlate signs and symptoms of common diseases to emergency patients and their primary complaint.
- formulate competent treatment plans for medical or trauma patients.
- report assessment findings, diagnosis, and treatment plans to appropriate health professionals.
- develop and implement strategies to strengthen personal empathy and sympathy for prehospital patients.
- apply ethical practices during all phases of an emergency medical response.
- demonstrate advanced life support skills competency as set by the National Registry of Emergency Medical Technicians.
- assess scene and personal safety before, during and after each emergency response.
- compose accurate, timely and specific patient care reports in accordance with local, regional and state documentation standards.

## Career Information

The ARC Paramedic program is designed to prepare students for licensure as a paramedic, working for a fire department, rescue squad, private provider, industry, clinic, or hospital.

## Certificate

### Emergency Medical Technician (EMT) Certificate

This program prepares students to function as certified Emergency Medical Technicians. Training topics include the skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service. This program is conducted in compliance with Title 22, Division 9, Chapter 2 of the California Code of Regulations and Emergency Medical Technician (EMT). A "C" or better is required to obtain a course completion certificate.

Catalog Date: January 1, 2021

### Certificate Requirements

COURSE CODE	COURSE TITLE	UNITS
EMT 110	Emergency Medical Technician (EMT) Didactic	6
EMT 111	Emergency Medical Technician (EMT) Practicum	1
Total Units:		7

### Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- Documentation of current American Heart Association CPR Basic Life Support certification. No other form of CPR certification is accepted. Students must be present and provide a copy of the AHA CPR certification on the first day of the course. Not open to students with current NREMT or California State certification or licensure as an EMT, EMT-Basic, Advanced EMT or paramedic.

### Enrollment Process

Eligible students are selected for the program according to the following steps:

- Verification of current American Heart Association Basic Life Support CPR certification. No other form of CPR certification is accepted. Students must be present and provide a copy of the AHA CPR certification on the first day of the course. Not open to students with current NREMT or California State certification or licensure as an EMT, EMT-Basic, Advanced EMT or paramedic.

## Student Learning Outcomes

Upon completion of this program, the student will be able to:

- evaluate the nature and seriousness of the patient's condition or extent of injuries.
- apply emergency medical care based on assessments and findings.
- demonstrate proper procedures in lifting, moving, and positioning a patient to minimize discomfort and prevent further injury.
- utilize communicating, transporting, and record keeping skills.

## Career Information

Emergency Medical Technicians operate in a variety of settings from public emergency services, private industry and health care facilities. EMT employment varies from community to community and is considered a growing occupation within the Allied Health professions.

## Paramedic (PMED) Courses

# PMED 105 Prehospital Pharmacology

Units:	0.5
Hours:	9 hours LEC
Prerequisite:	None.
Advisory:	MATH 32 or 42 with a grade of "C" or better AND ENGRD 116 or ESLR 320 with a grade of "C" or better.
Catalog Date:	January 1, 2021

This course provides basic instruction in prehospital pharmacology and calculating medication dosages.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- identify specific anatomy and physiology pertinent to medication administration.
- identify basic mathematical principles as they relate to drug dose calculations and administration.
- calculate drug dosages accurately using commonly accepted formulas and devices.
- identify drug classifications and their specific physiological effects.
- list various routes for drug administration in the prehospital setting.
- process drug orders using protocols.

# PMED 106 Emergency Medical Technician Pre-hospital Practices and Internship

Units:	6.5
Hours:	36 hours LEC; 243 hours LAB
Prerequisite:	Current California State Emergency Medical Technician certification.
Corequisite:	NURSE 320 or PMED 105
Enrollment Limitation:	A background check, drug screening, proof of current immunizations and malpractice insurance are required. Current California State Emergency Medical Technician (EMT) Certification and Professional BLS CPR certification from the American Heart Association. Only AHA BLS CPR certification will be accepted.
Advisory:	AH 110, BIOL 102, ENGRD 116, ENGWR 101, and MATH 32
Catalog Date:	January 1, 2021

This course provides expanded education in Emergency Medical Services (EMS) related topics, including assisting with Advanced Life Support (ALS) procedures as well as patient assessment and management training through patient simulation, clinical observation, and field experience. It can also serve as partial preparation for application to the American River College Paramedic Program.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- utilize medical terminology necessary for therapeutic communications in pre-hospital care and with other healthcare providers.
- demonstrate the consistent ability to perform basic life support assessment and patient management skills.
- assist paramedics and other advanced life support providers during patient care.
- identify medications commonly prescribed to patients encountered in pre-hospital care.
- describe the roles and responsibilities of the various types of responders during patient resuscitation.
- differentiate between acutely and chronically ill patients.
- correlate medical history information, vital sign data, and subjective patient complaints with the appropriate differential diagnoses.

# PMED 108 Emergency Medical Response

Units:	3
Hours:	45 hours LEC; 27 hours LAB
Prerequisite:	None.
Catalog Date:	January 1, 2021

This course is an introduction to the principles and practices of the Emergency Medical Services (EMS). It provides the knowledge and skills needed to integrate the care provided through the EMS system. A certificate of completion is available upon successful completion of this course.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- describe the pathophysiology of human disease and trauma, given a patient scenario.
- demonstrate life support skills for patients with specific medical and trauma airway conditions.
- utilize effective communication techniques with patients, bystanders, and other emergency responders in the EMS setting.

# PMED 110 Introduction to Advanced Prehospital Care

Units:	12
Hours:	144 hours LEC; 216 hours LAB
Prerequisite:	BIOL 102 and PMED 105 with grades of "C" or better
Enrollment Limitation:	Acceptance into the Paramedic Program
Advisory:	AH 110, ENGRD 116, ENGWR 101, HCD 114, and MATH 32
Catalog Date:	January 1, 2021

This course covers the didactic material and the related skills necessary to establish a foundation for subsequent prehospital patient assessment and management. Topics include preparatory, human body and human systems, pharmacology, patient assessment, airway management, trauma management, and respiratory and cardiac emergencies.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- identify the roles and responsibilities of Emergency Medical Services (EMS) personnel within the allied health system
- evaluate and interpret pathophysiological findings in prehospital patients
- appraise and identify patient criticality
- integrate legal and ethical concepts into patient management experiences
- identify principles of prehospital pharmacology including medication administration
- integrate prehospital emergency medications into patient care and management
- recognize, prioritize, and manage critical traumatic injuries
- properly diagnosis and manage patients with cardiac and respiratory chief complaints
- apply critical thinking and clinical decision making concepts during prehospital patient encounters
- integrate proper communication, documentation, and workplace safety methods during field practice
- recognize and apply local, state, and national treatment standards to sick or injured patients
- validate the importance of professionalism and continued medical education

## PMED 120 Clinical Internship

Units:	7
Hours:	54 hours LEC; 216 hours LAB
Prerequisite:	PMED 110 with a grade of "B" or better.
Enrollment Limitation:	Current Emergency Medical Technician certification. Current student enrolled in the Paramedic program.
Catalog Date:	January 1, 2021

This course provides an opportunity to apply the cognitive knowledge and psychomotor skills gained in PMED 110 to patient care in a hospital or other approved clinical setting. This course provides for increasing assessment techniques and advanced prehospital skills. Field trips may be required. A portion of this course may be offered in a TBA component of 216 hours which may include direct patient care in a clinical setting.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- demonstrate use of verbal/non-verbal skills in clinical situations
- perform, complete, and organize patient assessment for both trauma and medical patients
- intervene and initiate appropriate action at an emergency site
- perform a physical exam relevant to the patient's complaints
- identify and report all pertinent information in a systematic, concise manner to the preceptor and or the receiving facility staff
- recall and perform all patient safety considerations before, during, and after patient management
- demonstrate the integration of appropriate affective skills during high-fidelity patient simulations
- perform and manage team leadership responsibilities during all phases of a clinical patient encounter
- analyze pathophysiological concerns while managing clinical patients
- recognize pertinent pathophysiologies in complicated medical patient encounters
- differentially diagnosis prehospital patients with common medical and traumatic complaints
- recognize, develop, and apply appropriate treatment plans for special patient populations

## PMED 125 Introduction to Paramedicine

Units:	5.5
Hours:	45 hours LEC; 162 hours LAB
Prerequisite:	BIOL 102, PMED 105, and PMED 106 with grades of "C" or better
Enrollment Limitation:	Acceptance into the paramedic program. Successful completion a background, drug screen, and health physical exam as well as provide proof of current American Heart Association BLS Provider CPR certification and immunizations prior to enrollment into the course. Students must maintain current EMT licensure at all times throughout the course.
Advisory:	AH 110, ENGRD 116, ENGWR 101, HCD 114, and MATH 32
Catalog Date:	January 1, 2021

This course covers the didactic and psychomotor material necessary to establish a foundation for subsequent paramedic prehospital patient assessment and management. Topics include preparatory, human body and human systems, pharmacology, patient assessment, and airway management.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- define the paramedic roles and responsibilities within an EMS system, and how these roles and responsibilities differ from other levels of providers.
- explain the importance of personal wellness in EMS.
- define the role that ethics play in decision-making in the out-of-hospital environment.
- apply the general concepts of pathophysiology for assessment and management of emergency patients.
- describe the legal issues that impact decisions made in the out of hospital environment.
- integrate pathophysiological principles of pharmacology and the assessment findings to formulate a field impression and implement a pharmacologic management plan.
- safely and precisely access the venous circulation and administer medications.
- integrate the principles of therapeutic communication to effectively communicate with any patient while providing care.
- establish and/or maintain an open airway, oxygenate, and ventilate a patient by mastering techniques in Bag Valve Mask, Supraglottic Airway and Endotracheal Intubation.
- use the appropriate techniques to obtain a medical history from a patient.
- explain the pathophysiological significance of physical exam findings.
- integrate the principles of history taking and techniques of a physical exam to perform a patient assessment.
- apply a process of clinical decision making to use the assessment findings to help form a field impression.
- follow an accepted format for dissemination of patient information in verbal form.
- effectively document the essential elements of patient assessment, care, and transport.

## PMED 126 Paramedic Practices I

Units:	7
Hours:	54 hours LEC; 216 hours LAB
Prerequisite:	PMED 125 with a grade of "C" or better
Enrollment Limitation:	Acceptance into the paramedic program. Current EMT licensure must be maintained at all times throughout the course.
Catalog Date:	January 1, 2021

This course covers the didactic and psychomotor material necessary to establish a foundation for emergency care for patients suffering from respiratory, cardiac, shock, and traumatic emergencies.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- describe the knowledge and principles associated with the acute management of respiratory emergencies.
- demonstrate the appropriate management of a patient suffering from a respiratory emergency.
- describe the knowledge and principles associated with the acute management of cardiovascular emergencies including acute coronary syndrome and cardiac arrest.
- demonstrate the appropriate management of a patient suffering from a cardiovascular emergency.
- demonstrate the skills and ability to treat and manage an adult patient with acute coronary syndrome, or in cardiac arrest.
- describe the knowledge and principles associated with the acute management of traumatic emergencies.
- demonstrate the appropriate management of a trauma patient with complications affecting airway, breathing, circulation, hemorrhage, and shock.

## PMED 127 Paramedic Practices II

Units:	7
Hours:	54 hours LEC; 216 hours LAB
Prerequisite:	PMED 126 with a grade of "C" or better
Enrollment Limitation:	Acceptance into the paramedic program. Current EMT licensure must be maintained at all times throughout the course.
Catalog Date:	January 1, 2021

This course covers the didactic and psychomotor material necessary to establish a foundation for emergency care for patients suffering from medical, obstetric, pediatric and neonatal emergencies.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- apply the knowledge and principles associated with the acute management of medical emergencies.
- employ the knowledge and principles associated with the acute management of geriatric patients and patients with special challenges.
- describe the knowledge and principles associated with the acute of obstetric patients and childbirth.
- explain the knowledge and principles associated with the acute management of neonatal emergencies.
- practice the skills and abilities to assess and manage medical emergencies.
- demonstrate the skills and abilities to assess and manage geriatric emergencies and patients with special challenges.
- show the skills and abilities to assess and manage pediatric emergencies.
- demonstrate the skills and abilities to assess and manage obstetric and neonatal emergencies.

## PMED 130 Prehospital Field Internship

Units:	14
Hours:	54 hours LEC; 600 hours LAB
Prerequisite:	PMED 120 with a grade of "B" or better.
Enrollment Limitation:	Current EMT certification. Current student enrolled in the Paramedic program.
Catalog Date:	January 1, 2021

This course provides paramedic students with hands-on prehospital experiences and is the final course in the series preparing for a California paramedic license. Under the direct supervision and evaluation of a licensed paramedic or a mobile intensive care nurse, interns complete a prehospital field experience.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- demonstrate use of established treatment protocols and procedures in providing prehospital emergency care
- apply minimum competency in evaluation and leadership of an emergency scene, extrication procedures, patient assessment, radio communications, and use of prehospital equipment and drugs
- interpret scientific findings and their operational impact on prehospital emergency medicine
- specify the legal and ethical responsibilities inherent in the emergency medical services (EMS) profession
- implement competent treatment plans during high-fidelity patient simulations
- generate patient care documentation accurately reflecting all aspects of an emergency response
- employ leadership skills appropriate for the patient condition, resources available on scene, and local EMS system constraints

## PMED 140 Pediatric Advanced Life Support Certification

Units:	0.5
Hours:	6 hours LEC; 12 hours LAB
Prerequisite:	None.
Enrollment Limitation:	Current Provider C Basic Cardiac Life Support card or county-approved equivalent certificate. Current licensure as a paramedic, nurse, physician, or allied health professional, or current enrollment in the last semester of an allied health program.
Catalog Date:	January 1, 2021

This course provides education modules specific to pediatric emergencies for health care professionals. Certification in Pediatric Advanced Life Support (PALS) is granted to students who successfully complete the course.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- assess ill and injured pediatric patients using medically acceptable standards
- evaluate and interpret pathophysiological findings in pediatric patients
- assess and identify patient criticality, as well as provide life-saving interventions according to PALS standards
- implement communication skills with patients, family, and allied health professionals
- complete the examination process required by PALS

## PMED 142 Advanced Cardiac Life Support Certification

Units:	0.5
Hours:	6 hours LEC; 12 hours LAB
Prerequisite:	None.
Enrollment Limitation:	Current Provider C Basic Cardiac Life Support Card, equivalent licensure as a paramedic, nurse, physician, or allied health professional, or current enrollment in an allied health program.
Catalog Date:	January 1, 2021

This course provides education modules specific to adult cardiac emergencies for health care professionals. Certification in Advanced Cardiac Life Support (ACLS) is granted to students who successfully complete the course.

### Student Learning Outcomes

Upon completion of this course, the student will be able to:

- assess ill and injured adult cardiac patients using the latest medically acceptable standards
- evaluate and interpret pathophysiological findings in adult cardiac patients
- assess and identify patient criticality and provide life-saving interventions according to the most recent ACLS standards
- implement communication skills with patients, family, and allied health professionals
- complete the examination process required by ACLS

## PMED 146 Prehospital Trauma Life Support

Units:	0.5
Hours:	5.5 hours LEC; 10.5 hours LAB
Prerequisite:	None.
Enrollment Limitation:	Current licensure as an emergency medical technician (EMT), paramedic, nurse, physician, or allied health professional, or current enrollment in the last semester of an allied health program.
Catalog Date:	January 1, 2021

This course is designed to improve the quality of trauma care and decrease mortality by stressing the treatment of the multisystem trauma patient. It utilizes the internationally recognized National Association of EMTs (NAEMT) Prehospital Trauma Life Support (PHTLS) curriculum. PHTLS is appropriate for EMTs, paramedics, nurses, physician assistants, physicians, and other prehospital providers.

### Student Learning Outcomes

Upon completion of this course, the student will be able to:

- describe the physiology of life and death in a trauma patient.
- recognize the components of a complete and thorough scene assessment.
- describe an organized and complete patient assessment utilizing the X, A, B, C, D, E approach on a trauma patient.
- describe and demonstrate the appropriate management of a trauma patient with complications affecting airway, breathing, circulation, hemorrhage, and shock.
- discuss and compare the needs of patients with disabilities.

## PMED 160 Introductory Wilderness Medicine

Units:	2
Hours:	27 hours LEC; 27 hours LAB
Prerequisite:	None.
Catalog Date:	January 1, 2021

This course provides the didactic material and related skills necessary to establish a foundation of medical care in the wilderness setting. Topics include anatomy and physiology, care of traumatic injuries, patient assessment, environmental injuries, medical emergencies, common simple wilderness medical problems, basic wilderness survival for the initial responder, improvised bleeding control in the field setting, and selecting and caring for wilderness medical equipment and supplies. This course emphasizes improvised care options and long-term care in field settings.

### Student Learning Outcomes

Upon completion of this course, the student will be able to:

- identify common wilderness medical problems
- assess patients in extreme environmental conditions, such as severe heat, cold, altitude, and rugged terrain
- identify resources for further learning in wilderness medicine
- demonstrate proper use of personal protective equipment
- correlate signs and symptoms of common diseases to patients and their primary complaint
- report assessment findings, diagnosis, and treatment plans to appropriate health professionals

## PMED 161 Advanced Wilderness Medicine

Units:	2
Hours:	27 hours LEC; 27 hours LAB
Prerequisite:	None.
Advisory:	PMED 160
Catalog Date:	January 1, 2021

This course provides the didactic material and related skills necessary to establish an advanced level of medical care in the wilderness setting. Topics include anatomy and physiology, improvised airway control, principles of

musculoskeletal care, synthesis of wilderness medicine and urban care, and common simple wilderness medical problems. Additionally, basic wilderness survival for the wilderness responder, and selecting and caring for wilderness medical equipment and supplies are covered. This course emphasizes improvised care options and long-term care in remote field settings.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- identify common wilderness medical problems
- assess patients in extreme environmental conditions, such as severe heat, cold, altitude, and rugged terrain
- demonstrate use of personal protective equipment from biohazards and other objective hazards of wilderness medicine, such as extremes of heat and cold, lack of water, altitude, and other hazards
- demonstrate improvised treatments for common wilderness medical injuries, using minimal equipment
- identify and refine a lightweight survival and medical kit for specific bioregions, such as desert, snow, water, or high altitude
- differentiate between patients with mild, moderate, or severe disease in the wilderness setting
- identify resources for further learning in wilderness medicine

## PMED 165 EMS Search and Technical Rescue

Units: 2  
Hours: 27 hours LEC; 27 hours LAB  
Prerequisite: None.  
Catalog Date: January 1, 2021

This course provides a foundation in several technical rescue disciplines. Practical applications of water rescue, low angle and high angle rescue, and urban search and rescue are covered. Additionally, basic survival skills in rescue environments for the Emergency Medical Technician-Paramedic (EMT-P), and selecting and caring for rescue equipment and supplies are covered. This course emphasizes scenario-based learning in safely assessing, managing, and pre-planning for the technical rescue environment.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- identify common environments and situations
- assess safety hazards in the covered rescue environment
- identify the rescue gear necessary for a given rescue environment
- improvise rescue gear and techniques as necessary
- complete a mock rescue

## PMED 295 Independent Studies in Paramedic

Units: 1 - 3  
Prerequisite: None.  
Catalog Date: January 1, 2021

Course description:

PMED 295 is an opportunity for the student to extend classroom experience in this subject area, while working independently of a formal classroom situation. PMED 295 is an extension of work offered in a specific class in the college catalog. To be eligible for PMED 295, students must have completed the basic regular catalog course at American River College. They must also discuss the study project with a professor in this subject area and secure prior approval. Only one independent study for each catalog course will be allowed.

## PMED 298 Work Experience in Paramedic

Units: 1 - 4  
Hours: 60 - 300 hours LAB  
Prerequisite: None.  
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position, or job related to the paramedic field with a cooperating site supervisor. Students are advised to consult with the Paramedic faculty to review specific certificate and degree work experience requirements.  
Advisory: Eligible for ENGRD 310 or ENGRD 312 AND ENGWR 300; OR ESLR 340 AND ESLW 340.  
General Education: AA/AS Area III(b)  
Catalog Date: January 1, 2021

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement within the paramedic field. It is designed for students interested in work experience and/or internships in associate degree level or certificate occupational programs. Course content includes understanding the application of education to the workforce, completion of Title 5 required forms which document the student's progress and hours spent at the work site, and developing workplace skills and competencies.

During the semester, the student is required to complete 75 hours of related paid work experience, or 60 hours of related unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. All students are required to attend the first class meeting, a mid-semester meeting, and a final meeting. Additionally, students who have not already successfully completed a Work Experience course will be required to attend weekly orientations while returning participants may meet individually with the instructor as needed. Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- demonstrate mastery of specific job skills in the paramedic field related to an associate degree or certificate occupational program level career as written in the minimum three (3) learning objectives created by the student and his/her employer or work site supervisor at the start of the course.
- make effective decisions, use workforce information, and manage his/her personal career plans.
- behave professionally, ethically, and legally at work, consistent with applicable laws, regulations, and organizational norms.
- behave responsibly at work, exhibiting initiative and self-management in situations where it is needed.
- develop effective leadership skills at work, with consideration to group dynamics, team and individual decision making, and workforce diversity.
- communicate in oral, written, and other formats, as needed, in a variety of contexts at work.
- locate, organize, evaluate, and reference information at work.
- demonstrate originality and inventiveness at work by combining ideas or information in new ways, making connections between seemingly unrelated ideas, and reshaping goals in ways that reveal new possibilities using critical and creative thinking skills such as logical reasoning, analytical thinking, and problem-solving.

# PMED 299 Experimental Offering in Paramedic

Units: 0.5 - 4  
Prerequisite: None.  
Catalog Date: January 1, 2021

# PMED 1000 Emergency Medical Technician: Refresher

Units: 1.5  
Hours: 23 hours LEC; 25 hours LAB  
Prerequisite: None.  
Enrollment Limitation: Current or recent certification as an Emergency Medical Technician.  
Catalog Date: January 1, 2021

This course provides continuing education and skills verification modules for current Emergency Medical Technicians (EMTs) certified at the Basic Life Support (BLS) level. It satisfies most of the refresher requirements of local, state, and national Emergency Medical Services (EMS) certifying organizations. EMS-related topics include airway management and ventilation, cardiac care and resuscitation, patient assessment, injury management, legal and ethical issues, vital signs monitoring, and assisting with medication administration. This course does not provide preparation for the National Registry of Emergency Medical Technicians (NREMT) entry or recertification exam. Completion of this course provides currently certified EMTs, wanting to recertify with the NREMT, with the 24 hours of required course content as well as the verification of required skills competency.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- assess ill and injured patients using standards promulgated by regional and national certifying organizations.
- effectively obtain, evaluate, and interpret physiological data and assessment findings in the out-of-hospital setting.
- assess and identify the level of acuity of a patient's condition.
- provide interventions that preserve life and reduce suffering that are within the EMT current scope of practice.
- establish and maintain effective communication with patients, family members, rescuers and other health care professionals.
- recognize the indications and demonstrate the techniques for administering medications that are within the EMT scope of practice.
- demonstrate minimum competency in Professional Rescuer level CPR, patient assessment/management and ventilator management skills, and knowledge.
- demonstrate minimum competency in cardiac arrest management, hemorrhage control, and splinting procedures.
- demonstrate minimum competency in spinal immobilization, obstetrics and gynecological emergencies, radio communications, and report writing and documentation.

# PMED 1006 Post Licensure/Certification Out-of-Hospital Skills: Medical

Units: 0.5  
Hours: 6 hours LEC; 9 hours LAB  
Prerequisite: None.  
Enrollment Limitation: Current certification as an EMT-Basic (1) or licensure as a Paramedic  
Catalog Date: January 1, 2021

This course provides education modules related to medical emergencies for prehospital health care professionals. Each module will specifically address issues related to prehospital emergencies and local treatment protocol. This course provides continuing education credit necessary for maintenance of EMT-Basic certification or a Paramedic license. Pass/No Pass only.

## Student Learning Outcomes

Upon completion of this course, the student will be able to:

- assess out-of-hospital emergency patients with medical emergencies using medically acceptable standards
- evaluate and interpret pathophysiological findings in patients requiring medical management such as seizures, diabetic emergencies, and drug overdoses.
- assess and identify patient criticality and provide lifesaving interventions according to national and local standards such as Naloxone administration for an opioid overdose.

## Faculty

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## ARC Paramedic-EMT Paramedicine Program

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