Paramedic Degree and Certificate

Paramedicine is an allied health specialty whose practitioners generally 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 and traumatic emergencies. The knowledge, skills and experience gained through the paramedic program allows students to meet the responsibilities outlined in the Department of Transportation’s National Emergency Medical Services Education Standards, Paramedic instructional guidelines. The paramedic program is fully accredited by the Committee on Accreditation of Educational Programs for the EMS Professional (CoAEMSP), www.coaemsp.org, 1248 Harwood Rd., Bedford, TX, 76021, (817)283-9403.

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 Opportunities

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.

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.
• Current curriculum planning summary sheet within the semester in which the pre-enrollment packet is being submitted.
• Current certification as an Emergency Medical Technician-Basic and approximately one year verified EMS experience.
• If less than one year EMS experience, it is strongly recommended the student successfully complete PMED 106.
• Questions about EMS experience must be directed to Dr. Grant Goold, 916/484-8843.

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 www.arc.losrios.edu/edhealth/paramed.html. Applications for Spring admission will be available by 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 selected 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, inoculations, drug screen, background check, and malpractice insurance prior to entering the second semester.
# Paramedic Education Program

This program is designed to provide instruction to the level of Emergency Medical Technician (EMT). It includes both classroom and hands-on instruction in calculating medication dosages. Students who complete this program are eligible to sit for the National Registry of Emergency Medical Technicians (NREMT) certification examination.

## Requirements for Degree Major or Certificate  
36.5-43.5 Units

### BIOL 102
Intro to Concepts 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 Calculations (0.5)  
0.5 - 1.5

or

### NURSE 320
Medical Dosage Calculations (1.5)

### PMED 110
Introduction to Advanced Prehospital Care  
12

or

### PMED 111
Advanced Prehospital Care: Preparatory and Airway Management (4.5)

### and PMED 112
Advanced Prehospital Care: General Medical Emergencies (2.5)

### and PMED 113
Advanced Prehospital Care: Trauma and Pediatric Care (5)

### PMED 120
Clinical Internship  
6

### PMED 130
Prehospital Field Internship  
14

### Associate Degree Requirements:

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.

## PMED 100 Emergency Medical Technician - Basic  
5 Units

Same As: FT 200

Prerequisite: HEED 323 with a grade of "C" or better

Enrollment Limitation: Not open to students with a current EMT - Basic certificate.

Hours: 72 hours LEC; 72 hours LAB

This course is designed to provide instruction to the level of Emergency Medical Technician - Basic. Topics include skills necessary to provide emergency medical care at a basic life support level with a fire, ambulance, or other specialized service. This course is conducted in compliance with Title 22, Division 9, Chapter 2 of the California Code of Regulations and Emergency Medical Technician - Basic (EMT-I). A "C" or better is required for certification as Emergency Medical Technician - Basic. Field trips are required. This course may be taken four times for credit.

### PMED 101 Pre-paramedic Emergency Medical Technician - Basic Skills  
.5 Units

Prerequisite: Current certification of Emergency Medical Technician - Basic (EMT-B).

Hours: 8 hours LEC; 16 hours LAB

This course is designed for the Emergency Medical Technician - Basic (EMT-B) to review a variety of emergency field skills in preparation to begin a field internship. It also includes a selected number of EMT-B skills used as part of the skills competency requirement by the National Registry of Emergency Medical Technicians. This course may be taken four times. Credit/No Credit Only.

### PMED 102 Emergency Medical Technician - Basic, Prehospital Field Internship  
5 Units

Prerequisite: PMED 101.

Corequisite: BIOL 102.

Advisory: ENSWR 102 or ENSWR 103 and ENSWR 116, or ESLR 320, and ESLR 320; MATH 32.

Hours: 18 hours LEC; 216 hours LAB

This course is an internship that provides opportunities to refine hands-on basic life support skills in the pre-hospital setting. This internship is in preparation for application to the American River College, Paramedic Education Program.

### PMED 103 EMT-Basic Introduction to Basic Life Support  
3.5 Units

Prerequisite: HEED 323 with a grade of "C" or better

Enrollment Limitation: Background check, proof of current immunizations, and campus Health Center clearance.

Hours: 54 hours LEC; 27 hours LAB

This course provides preparation for the Emergency Medical Technician - Basic (EMT-Basic) certification. It provides the skills necessary for emergency medical care at a basic life support level with an ambulance service, fire department or other specialized service. This course complies with Title 22, Division 9, Chapter 2 of the California Code of Regulations. The completion of PMED 103 and PMED 104 is equivalent to PMED 100. This course is not open to students who are currently certified as an EMT-Basic.

### PMED 104 EMT-Basic Application of Basic Life Support  
1.5 Units

Prerequisite: PMED 103 with a grade of "C" or better

Enrollment Limitation: A background check, proof of current immunizations and campus Health Center clearance are required. Current CPR certification at one of the following levels: Healthcare Provider, Professional Rescuer or equivalent.

Hours: 27 hours LEC; 45 hours LAB

This course provides preparation for the Emergency Medical Technician - Basic (EMT-Basic) certification. It provides the skills necessary for emergency medical care at a basic life support level with an ambulance service, fire department or other specialized service. This course complies with Title 22, Division 9, Chapter 2 of the California Code of Regulations. The completion of PMED 103 and PMED 104 is equivalent to PMED 100. PMED 104 must be taken immediately after the successful completion of PMED 103 in consecutive semesters. This course is not open to students who are currently certified as an EMT-Basic.

### PMED 105 Prehospital Calculations  
.5 Units

Prerequisite: Current certification as an EMT-basic in the state of California, as required by Title 22.

Advisory: MATH 32.

Hours: 9 hours LEC

This course provides basic instruction in calculating medication dosages in the pre-hospital setting.

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

Prerequisite: Current California Emergency Medical Technician (EMT-I or EMT-B) certification.

Corequisite: BIOL 102

Advisory: ENSWR 116, ENSWR 103, and MATH 32; or placement through the assessment process.

Enrollment Limitation: A background check, proof of current immunizations and campus Health Center clearance are required. Current CPR certification at one of the following levels: Healthcare Provider, Professional Rescuer or equivalent.

Hours: 36 hours LEC; 243 hours LAB

This course reviews and expands the Basic Life Support (BLS) knowledge and skills of the Emergency Medical Technician (EMT). It provides opportunities to practice the appropriate life support skills during a structured clinical and field internship. It serves as preparation for Advanced EMT coursework and application to the American River College Paramedic Education Program.
PMED 108 Emergency Medical Response 3 Units
Hours: 45 hours LEC; 13.5 hours LAB
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.

PMED 110 Introduction to Advanced Prehospital Care 12 Units
Prerequisite: Acceptance into the Paramedic Program.
Hours: 144 hours LEC; 216 hours LAB
This course contains the didactic material and the related skills necessary to establish a foundation for subsequent prehospital assessment and management. Topics include anatomy and physiology, pharmacology, intravenous therapy, basic and advanced life support, electrocardiography, medical/surgical, pediatric, obstetrics, and psychiatric/geriatric problems. Crisis intervention, strategies, and medical legal concepts are also discussed.

PMED 111 Advanced Prehospital Care: Preparatory and Airway Management 4.5 Units
Enrollment Limitation: Acceptance into the Paramedic Program.
Hours: 54 hours LEC; 81 hours LAB
This course contains the initial didactic material and related skills necessary to establish a foundation for subsequent prehospital assessments and management. Topics include anatomy and physiology, pharmacology, intravenous therapy, basic and advanced airway control techniques and respiratory emergency management. The completion of PMED 111, PMED 112 and PMED 113 is equivalent to PMED 110. This course is not available to those who have completed PMED 110.

PMED 112 Advanced Prehospital Care: General Medical Emergencies 2.5 Units
Prerequisite: PMED 111 (Advanced Prehospital Care—Preparatory and Airway Management) with a "B" or better.
Hours: 27 hours LEC; 54 hours LAB
This course contains the didactic material and the related skills necessary to assess and properly manage prehospital patients with medical complaints. Topics include respiratory and cardiac pathologies. The completion of PMED 111, PMED 112 and PMED 113 is equivalent to PMED 110. This course is not available to those who have completed PMED 110.

PMED 113 Advanced Prehospital Care: Trauma and Pediatric Care 5 Units
Prerequisite: PMED 112 (Advanced Prehospital Care—General Medical Emergencies) with a "B" or better.
Hours: 63 hours LEC; 81 hours LAB
This course contains the didactic materials and related skills necessary to assess and manage prehospital trauma and pediatric patients. Topics include pediatrics and obstetrics, kinematics of trauma, soft-tissue injuries, toxicology, substance abuse and advanced ambulance operations. The completion of PMED 111, PMED 112 and PMED 113 is equivalent to PMED 110. This course is not available to those who have completed PMED 110.

PMED 120 Clinical Internship 6 Units
Prerequisite: PMED 110, with a grade of "C" or better; current Emergency Medical Technician I certification.
Hours: 36 hours LEC; 216 hours LAB
This course is designed to provide an opportunity to apply the cognitive knowledge and skills gained in the Paramedicine course to patient care in a hospital setting. This course provides for increasing assessment techniques and advanced skills.

PMED 130 Prehospital Field Internship 14 Units
Prerequisite: PMED 120 with a grade of "C" or better.
Enrollment Limitation: Current EMT-Basic(I) certification. After enrollment, all students are required to successfully complete a background check prior to starting a field internship assignment.
Hours: 54 hours LEC; 600 hours LAB
Under the direct supervision and evaluation of a licensed paramedic or a mobile intensive care nurse, the intern completes a prehospital field experience. This internship provides the paramedic student with hands-on prehospital experience and is the final course in the series preparing the for a California paramedic license.

PMED 140 Pediatric Advanced Life Support Certification (PALS) .5 Units
Prerequisite: Current Provider C Basic Cardiac Life Support card or county-approved equivalent certificate. Current licensure as a paramedic, nurse, physician, allied health professional or current enrollment in the last semester of an allied health program.
Hours: 6 hours LEC; 12 hours LAB
This course provides education modules for health care professionals specific to pediatric emergencies. Certification in pediatric advanced life support is granted to students who successfully complete the course. This course may be taken four times.

PMED 142 Advanced Cardiac Life Support Certification .5 Units
Prerequisite: Current Provider C Basic Cardiac Life Support Card or equivalent licensure as a paramedic, nurse, physician, allied health professional or current enrollment in an Allied Health program.
Hours: 6 hours LEC; 12 hours LAB
This course provides education modules for health care professionals specific to pediatric emergencies. Certification in advanced cardiac life support is granted to students who successfully complete the course. This course may be taken four times.

PMED 160 Introductory Wilderness Medicine 2 Units
Prerequisite: Current certification in provider level Cardiopulmonary Resuscitation. Advisory: Basic First Aid.
Hours: 27 hours LEC; 27 hours LAB
This course provides the didactic material and related skills necessary to establish a foundation of medical care in the wilderness setting. Anatomy and physiology, care of traumatic injuries, patient assessment, environment injuries, medical emergencies, and common simple wilderness medical problems are included. Additionally, basic wilderness survival for the initial responder, and selecting and caring for wilderness medical equipment and supplies will be covered. This course emphasizes improvised care options, and long term care in field settings.

PMED 161 Advanced Wilderness Medicine 2 Units
Prerequisite: PMED 160 or EMT, or other health care provider such as nurse or doctor.
Hours: 27 hours LEC; 27 hours LAB
This course allows the student to gain an advanced level of medical care in the wilderness setting. Anatomy and physiology, improvised airway control, principles of musculoskeletal care, integration of field, synthesis of wilderness medicine and urban care, and common simple wilderness medical problems are included. Additionally, basic wilderness survival for the wilderness responder, and selecting and caring for wilderness medical equipment and supplies will be covered. This course emphasizes improvised care options, and long term care in remote field settings.
PMED 165  EMS Search and Technical Rescue  2 Units
Hours: 27 hours LEC, 27 hours LAB
This course provides the student with 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 EMT/Paramedic, and selecting and caring for rescue equipment and supplies will be covered. This course emphasizes scenario-based learning in safely assessing, managing and pre-planning for the technical rescue environment.

PMED 240  Pediatric Advanced Life Support-Recertification  .5 Units
Enrollment Limitation: Current American Heart Association Pediatric Advanced Life Support Provider Card or county approved equivalent certificate.
Hours: 8 hours LEC, 3 hours LAB
This course provides specific pediatric modules for health care professionals. It provides recertification according to the American Heart Association’s Pediatric Advanced Life Support standards and guidelines. This course may be taken four times.

PMED 242  Advanced Cardiac Life Support-Recertification  .5 Units
Enrollment Limitation: Current American Heart Association Advanced Cardiac Life Support Provider Card or county approved equivalent certificate.
Hours: 8 hours LEC, 3 hours LAB
This course provides education modules specific for adult cardiac emergencies for health care professionals. It provides recertification according to the American Heart Association’s Advanced Cardiac Life Support standards and guidelines. This course may be taken four times.

PMED 1000 Emergency Medical Technician - Basic: Refresher  1.5 Units
Enrollment Limitation: Current certification as an Emergency Medical Technician - Basic
Hours: 23 hours LEC, 12 hours LAB
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. This course may be taken four times. Credit/No Credit only.