LAS POSITAS COLLEGE

Instructional Equipment Request (IER) Form
FY 2022-2023

Deadlines

Date	Action
October 12, 2022	IER forms due to Division Dean
October 19, 2022	Division review of IER forms (Dean & VP signature)
October 21, 2022	IER forms due to Executive Assistant of Administrative Services (with Dean & VP signature)

Checklist

- ☑ All IER form fields complete (**attach requisition and quote before e-signing IER form**)
- ☑ Requisition completed and attached
- ☑ Valid quote attached (with extended expiration date) including (1) shipping costs, (2) installation fees, and (3) taxes. **Do not split quotes or submit duplicate quotes**. For assistance with quotes, please contact Bill Pagano at bpagano@clpccd.org or (925) 485-5271.
    - If the quote total (including taxes) ranges from **$30,000 to $99,099**:
        - You must submit **three** written quotes with your request.
    - For quotes of **$99,100 or more**, the request must go out for bid (aka RFP process) and requires Board approval. You will be provided further instruction after your request is approved.
- ☑ IER form and requisition signed by Requestor
- ☑ IER form, requisition, and quote submitted as one PDF file to Division Dean including:
    - New Vendor Form (if new vendor)
    - Copy of W9 (if new vendor)

*Note: Mac Users – do not use Apple Preview to complete forms – data will not appear when printed.

IER Process Flow

1. All paperwork filled out and signed by Requestor
2. Requestor submits to Dean for signature
3. Dean submits to VP for signature
4. VP submits to Executive Assistant of Administrative Services for review
5. EA Admin Svcs submits to M&O and IT for review
6. EA Admin Svcs creates scoring spreadsheet and disseminates to committee
7. RAC scores submissions and returns to EA Admin Svcs
8. EA Admin Svcs combines committee scores for review
9. RAC Chair documents committee scoring in memo
10. College President meets with RAC Chair to review committee recommendations
11. President's Office provides approval memo to RAC
12. RAC submits IER forms to Business Office for processing

Instructional Equipment Definitions

Allowable Items

Allowable Items: Instructional equipment expenditures are eligible if the equipment, library material, or technology is for classroom instruction, student instruction or demonstration, or in the preparation of learning materials in an instructional program. There are five categories that will be used to classify instructional support. Please note that requests are not limited to the examples shown below.

1. **Equipment and Furniture**: instructional equipment and furniture for primary use by students in instructional programs:
    a. Classroom/laboratory equipment including whiteboard, screen, projector, etc.
    b. Instructional furniture including desks, tables, podium, chairs, etc.
2. **Information Technology**: instructional information technology equipment for student use in classrooms and/or laboratories including desktops, laptops, monitors, printers, servers, network/wireless infrastructure, AV/TV, multimedia.
3. **Software**: software licenses are allowed but only the initial year is permitted. Other software that are permitted are those that are used in excess of one year and software modifications that add capacity or efficiency to the software that defers obsolescence and results in an extension of the useful life of the software, including registration, counseling, student services, learning management systems for student use.
4. **Adaptive Equipment**: adaptive equipment for ADA/OCR students are allowed to assist them in a learning environment.
5. **Library Material**: databases, online subscriptions, books, periodicals, videos, etc.

Non-Allowable Items

Non-Allowable Items: Administrative or non-instructional purposes including equipment being used for administrative or non- instructional purposes is not allowed, including photocopiers, file cabinets, bookcases, computers, networking infrastructure, software licenses.

IE Rubric

RAC evaluates each IE request based on the rubric below. RAC stresses the importance of quality requests. RAC may choose not to rank incomplete IE requests.

Criteria	Strong Evidence	Adequate Evidence	Limited Evidence
LPC Mission & Planning Priorities [Section 2] ***(5 points)*** Ranking Scale	Clear and compelling evidence/data that equipment will fully support LPC Mission and Planning Priorities. 4-5	Clear evidence/data that equipment will fully support LPC Mission and Planning Priorities. 2-3	Limited or no evidence/data that equipment will support LPC Mission and Planning Priorities. 0-1
Educational Items: Programmatic Impact and Institutional Support [Section 3] ***(10 points)*** Ranking Scale	Clear and compelling evidence/data (as stated in program review) that this equipment will have substantial impact on program curriculum. 8-10	Clear evidence/data (as stated in program review) that this equipment will have substantial impact on program curriculum. 4-7	Limited or no evidence/data (as stated in program review) that this equipment will have an impact on program curriculum. 0-3
Teaching & Learning [Section 4] ***(10 points)*** Ranking Scale	Clear and compelling evidence/data that equipment provides much needed or beneficial enhancement to instruction. 8-10	Clear evidence/data that equipment provides enhanced instruction that is not met through current means. 4-7	Limited or no evidence/data that equipment provides enhanced instruction that is not met through current means. 0-3
Outcomes [Section 5] ***(5 points)*** Ranking Scale	Clear and compelling evidence/data that equipment will support course and/or program outcomes above and beyond current capability. 4-5	Clear evidence/data that equipment will support course and/or program outcomes beyond current capability. 2-3	Limited or no evidence/data that equipment will support course and/or program outcomes beyond current capability. 0-1

Instructional Equipment Request Form

Name of Requestor: Amelia Blackshear **Division:** PATH

This Equipment Request is: ☐ A Replacement | ☐ An Upgrade | ☑ New Equipment or Technology

SECTION 1: Equipment Description

Describe the specific equipment requested and how it will be used to replace, upgrade, or provide new technology to LPC from what is currently in place:

Equipment Location

Building #: Public Safety Complex (FALL 2023) **Room #:** TBD

Comments:

The Emergency Medical Services (EMS) Department requests medical instructional equipment, the LIFEPAK 15 (LP15)monitor/defibrillator, to replace current out of date medical equipment to provide upgraded and new technology based on guidelines that are grounded on the best quality relevant evidence available based on the principles of evidence-based medicine (EBM), which provides a framework for clinicians to determine whether interventions are effective and suitable for use in their practice. EBM has ultimately led to the implementation of additional processes for healthcare students to assess, monitor, and treat patients that integrate research evidence. These have guided the development and evolution and utilization of EMS technologies that were not previously possible in EMS field care.

The LIFEPAK® 15 monitor/defibrillator is the standard in emergency care for advanced patient care teams who require the most clinically innovative and effective, monitoring and defibrillation device available today. The LP15 has advanced monitoring parameters allowing for more monitoring capabilities than any other device. The extensive monitoring capabilities, which are now the assessment and treatment education standard for Emergency Medical Technician-Paramedic (EMT-P) students and EMS field personnel include(s) noninvasive monitoring of carbon monoxide, SpO2-oxygen saturation/ pulse oximetry, and methemoglobin (related to certain chemical exposures and drugs) helps to detect hard-to-diagnose conditions and improve patient care. In addition, the LP 15 offers temperature monitoring—and like other data, an EMT-P student practitioner may trend it, or display for post-event review in cardiac arrest event software. The LP15 provides advanced support for treating cardiac patients. The LP15 continuously monitors all electrocardiogram (ECG) 12-leads in the background and alerts the practitioner to changes using an ST-Segment trend monitoring feature, (ST segment elevation, which is the finding on an ECG that allows paramedic students to diagnose and ultimately treat a large heart attack) after acquiring the initial 12-lead. Additionally, segment trend values are included on the 12-lead printout to help identify ECG changes. The LP15 also works seamlessly with web-based systems, allowing automatic sharing of critical patient data with patient care teams. As with other parts of the healthcare system, Emergency Medical Services (EMS) leaders, medical directors, and clinicians strive to deliver high-quality, safe care consistent with best practice.

If applicable, describe the legal requirement, mandate, or safety concern related to the purchase of this equipment, making specific reference to legal requirements or regulations:

The LPC EMS Department must comply with several oversight and regulatory agencies to provide pre-hospital career technical education (CTE) training courses and programs. Paramedic education program curriculum is promulgated and governed by these entities. The following organizations prescribe the mandates and legal requirements for LPC's Emergency Medical Services (EMS) training programs and courses wherein exists the basis of the purchase of the requested instructional medical equipment. The United States Department of Transportation (DOT), National Highway Traffic Safety Administration (NHTSA) established the National Standard Curriculum for Emergency Medical Technician-Paramedic (EMT-P, Paramedic). This curriculum represents the minimum required information to be presented within a course leading to certification as a Paramedic.

LPC's Paramedic Academy is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), the leader and largest postsecondary programmatic accrediting agency of the health sciences professions education. CAAHEP is recognized by the Council for Higher Education Accreditation (CHEA). At the heart of the CAAHEP accreditation system are the nationally-recognized Standards and Guidelines. CAAHEP Standards have common elements with discipline-specific requirements for training entry level practitioners in the paramedic profession. The Standards review process is rigorous, including input from the communities of interest, a public open hearing, and approval by the Committee on Accreditation (CoA).

See attached Section 1 Page 3A, 3B, Appendix A

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If applicable, describe the legal requirement, mandate, or safety concern related to the purchase of this equipment, making specific reference to legal requirements or regulations:

"The program must demonstrate by comparison that the curriculum offered meets or exceeds the content and competency of the latest edition of the National EMS Education Standards."

Specifically, CAAHEP carries out its accrediting activities with EMS programs in cooperation with the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). LPC's programmatic accreditation in the EMS disciplines serves a very important public interest and reflects what a student needs to know and be able to do to function successfully within pre-hospital care profession. Additionally, LPC's EMS programs require compliance meet the regulations of the National EMS Scope of Practice Model (Practice Model). The Practice Model is a work product commissioned by the NHTSA as a continuation of the commitment of the National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration (HRSA) to the implementation of the EMS Agenda for the Future ("EMS Agenda"). It is part of an integrated, interdependent system, first proposed in the EMS Education Agenda for the Future: A Systems Approach ("Education Agenda") that endeavors to maximize efficiency, consistency of instructional quality, and student competence. It supports a system of EMS personnel licensure that is common in other allied health professions and is a guide for States in developing their Scope of Practice legislation, rules, and regulation.

The Emergency Medical Services System and Prehospital Emergency Medical Care Personnel Act (California Health and Safety Code sections 1797 et seq.) created the Emergency Medical Services Authority in 1980.

The EMS Authority is charged with providing leadership in developing and implementing Emergency Medical Services (EMS) systems throughout California. In California, day-to-day EMS system management is a local responsibility. Each county developing an EMS system must designate a local EMS agency (LEMSA) which can be the county health department, an agency established and operated by the county, an entity with which the county contracts for the purposes of EMS administration.

The state's California Code of Regulations, Title 22, Division 9. Chapter 4. Emergency Medical Technician-Paramedic, Article 3. Program Requirements for Paramedic Training Programs contains EMS program requirements and education. The California Code of Regulations (CCR, Cal. Code Regs.) is the codification of the general and

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permanent rules and regulations (sometimes called administrative law) announced in the California Regulatory Notice Register by California state agencies under authority from primary legislation in the California Codes.

Locally, the Alameda County Emergency Medical Services Agency (ALCO EMS) is the Agency that plans, implements, and oversees all Emergency Medical Services (EMS) activities conducted in Alameda County. ALCO EMS maintains the highest standards for EMS educational programs in accordance with California State Regulations. ALCO EMS provides approval and oversight for EMS training programs operating in Alameda County. The Alameda County EMS Agency is the approving authority for any organization wishing to conduct a Paramedic Training Program within Alameda County.

APPENDIX A

Section 1: Equipment Description

Applicable DOT NHTSA EMT-Paramedic Curriculum Requirements

EMT-Paramedic Job Analysis Schedule

Uses basic and advanced life support equipment and administers medication through the patient's most appropriate body route, including intravenous injection.

Performs cardio-pulmonary resuscitation, uses defibrillator apparatus in application of electric shock to heart.

The Paramedic must also be able to read and interpret EKGs.

Machines, Tools, Equipment, and Work Aids: Ambulance, radio/telephone/pager, blood pressure cuff, thermometer, EKG machines, defibrillator, visual airway intubation and other complex equipment.

The paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the medical patient.

3-2.77 Demonstrate special examination techniques related to the assessment of the chest. (P-2)

3-2.81 Demonstrate special examination techniques of the cardiovascular examination. (P-2)

M. Additional assessment techniques

1. Pulse oximetry

2. Others

D. The cardiovascular system

b. Events in the cardiac cycle

2. Techniques of examination

a. The arterial pulse

(1) Heart rate

(2) Rhythm

(3) Amplitude

(4) Bruits and thrills

3-3.68 Demonstrate the techniques for assessing if the patient has a pulse. (P-2)

3-3.81 Perform a detailed physical examination. (P-2)

3-3.82 Demonstrate the skills involved in performing the on-going assessment. (P-2)

3-4.8 Defend the position that clinical decision making is the cornerstone of effective paramedic practice. (A

III. Fundamental elements of critical thinking for paramedics

A. Adequate fund of knowledge

B. Ability to focus on specific and multiple elements of data

C. Ability to gather and organize data and form concepts

D. Ability to identify and deal with medical ambiguity

E. Ability to differentiate between relevant and irrelevant data

F. Ability to analyze and compare similar situations

G. Ability to recall contrary situations

Patient Assessment: 3

Clinical Decision Making: 4

H. Ability to articulate decision making reasoning and construct arguments

Field impression/ working diagnosis

PSYCHOMOTOR OBJECTIVES

3-5.30 Demonstrate the ability to use the biotelemetry equipment used locally. (P-1)

Cardiology: 2

UNIT TERMINAL OBJECTIVE

5-2 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with cardiovascular disease.

COGNITIVE OBJECTIVES
At the completion of this unit, the paramedic student will be able to:
5-2.1 Describe the incidence, morbidity and mortality of cardiovascular disease. (C-1)

5-2.2 Discuss prevention strategies that may reduce the morbidity and mortality of cardiovascular disease. (C-1)
5-2.3 Identify the risk factors most predisposing to coronary artery disease. (C-1)

5-2.4 Describe the anatomy of the heart, including the position in the thoracic cavity, layers of the heart,
chambers of the heart, and location and function of cardiac valves. (C-1)

5-2.5 Identify the major structures of the vascular system. (C-1)

5-2.6 Identify the factors affecting venous retum. (C-1)

5-2.7 Identify and define the components of cardiac output. (C-1)

5-2.8 Identify phases of the cardiac cycle. (C-1)

5-2.9 Identify the arterial blood supply to any given area of the myocardium. (C-1)

5-2.10 Compare and contrast the coronary arterial distribution to the major portions of the cardiac conduction system. (C-3)

5-2.11 Identify the structure and course of all divisions and subdivisions of the cardiac conduction system. (C-1)
5-2.12 Identify and describe how the heart's pacemaking control, rate, and rhythm are determined. (C-2)

5-2.13 Explain the physiological basis of conduction delay in the AV node. (C-3)

5-2.14 Define the functional properties of cardiac muscle. (C-1)

5-2.15 Define the events comprising electrical potential. (C-1)

5-2.16 List the most important ions involved in myocardial action potential and their primary function in this
process. (C-2)

5-2.17 Describe the events involved in the steps from excitation to contraction of cardiac muscle fibers. (C-1)

5-2.18 Describe the clinical significance of Starling's law. (C-3)

5-2.19 Identify the structures of the autonomic nervous system (ANS). (C-1)

5-2.20 Identify the effect of the ANS on heart rate, rhythm and contractility. (C-1)

5-2.21 Define and give examples of positive and negative inotropism, chronotropism and dromotropism. (C-2)

5-2.22 Discuss the pathophysiology of cardiac disease and injury. (C-1)

5-2.23 Identify and describe the details of inspection, auscultation and palpation specific to the cardiovascular system. (C-1)

5-2.24 Define pulse deficit, pulsus paradoxus and pulsus alternans. (C-1)

5-2.25 Identify the normal characteristics of the point of maximal impulse (PMI). (C-1)

5-2.26 Identify and define the heart sounds. (C-1)

5-2.27 Relate heart sounds to hemodynamic events in the cardiac cycle. (C-2)

5-2.28 Describe the differences between normal and abnormal heart sounds. (C-2)

5-2.29 Identify and describe the components of the focused history as it relates to the patient with cardiovascular compromise. (C-1)

5-2.30 Explain the purpose of ECG monitoring. (C-1)

5-2.31 Describe how ECG wave forms are produced. (C-2)

5-2.32 Correlate the electrophysiological and hemodynamic events occurring throughout the entire cardiac cycle with the various ECG wave forms, segments and intervals. (C-2)

5-2.33 Ide ECG recordings. (C-3)

5-2.34 Relate the cardiac surfaces or areas represented by the ECG leads. (C-2) Identify how heart rates, durations, and amplitudes may be determined from ECG recordings. (C-3)

5-2.35 Given an ECG, identify the arrhythmia. (C-3)

5-2.36 Identify the limitations to the ECG. (C-1)

5-2.37 Differentiate among the primary mechanisms responsible for producing cardiac arrhythmias. (C-1)

5-2.38 Describe a systematic approach to the analysis and interpretation of cardiac arrhythmias. (C-2)

5-2.39 Describe the arrhythmias originating in the sinus node, the AV junction, the atria, and the ventricles. (C-3)

5-2.40 Describe the arrhythmias originating or sustained in the AV junction. (C-3)

5-2.41 Describe the abnormalities originating within the bundle branch system. (C-3)

5-2.42 Describe the process of differentiating wide QRS complex tachycardias. (C-3)

5-2.43 Recognize the pitfalls in the differentiation of wide QRS complex tachycardias. (C-1)

5-2.44 Describe the conditions of pulseless electrical activity. (C-3)

5-2.45 Describe the phenomena of reentry, aberration and accessory pathways. (C-1)

5-2.46 Identify the ECG changes characteristically produced by electrolyte imbalances and specify the clinical implications. (C-2)

5-2.47 Identify patient situations where ECG rhythm analysis is indicated. (C-1)

5-2.48 Recognize the changes on the ECG that may reflect evidence of myocardial ischemia and injury. (C-1)

5-2.49 Recognize the limitations of the ECG in reflecting evidence of myocardial ischemia and injury. (C-1)

5-2.50 Correlate abnormal ECG findings with clinical interpretation. (C-2)

5-2.51 Identify the major therapeutic objectives in the treatment of the patient with any arrhythmia. (C-1)

5-2.52 Identify the major mechanical, pharmacological and electrical therapeutic interventions. (C-3)

5-2.53 Based on field impressions, identify the need for rapid intervention for the patient in cardiovascular compromise. (C-3)

5-2.54 Describe the incidence, morbidity and mortality associated with myocardial conduction defects. (C-1)

5-2.55 Identify the clinical indications for transcutaneous and permanent artificial cardiac pacing. (C-1)

5-2.56 Describe the components and the functions of a transcutaneous pacing system. (C-1)

5-2.57 Explain what each setting and indicator on a transcutaneous pacing system represents and how the settings may be adjusted. (C-2)

5-2.58 Describe the techniques of applying a transcutaneous pacing system. (C-1)

5-2.59 Describe the characteristics of an implanted pacemaking system. (C-1)

5-2.60 Describe artifacts that may cause confusion when evaluating the ECG of a patient with a pacemaker. (C2)

5-2.61 List the possible complications of pacing. (C-3)

5-2.62 List the causes and implications of pacemaker failure. (C-2)

5-2.63 Identify additional hazards that interfere with artificial pacemaker function. (C-1)

5-2.64 Recognize the complications of artificial pacemakers as evidenced on ECG. (C-2)

5-2.65 Describe the epidemiology, morbidity and mortality, and pathophysiology of angina pectoris. (C-1)

5-2.66 List and describe the assessment parameters to be evaluated in a patient with angina pectoris. (C-1)

5-2.67 Identify what is meant by the OPQRST of chest pain assessment. (C-3)

5-2.68 List other clinical conditions that may mimic signs and symptoms of coronary artery disease and angina pectoris. (C-1)

5-2.69 Identify the ECG findings in patients with angina pectoris. (C-3)

5-2.70 Identify the paramedic responsibilities associated with management of the patient with angina pectoris. (C2)

5-2.71 Based on the pathophysiology and clinical evaluation of the patient with chest pain, list the anticipated clinical problems according to their life-threatening potential. (C-3)

5-2.72 Describe the epidemiology, morbidity and mortality of myocardial infarction. (C-1)

5-2.73 List the mechanisms by which an MI may be produced by traumatic and non-traumatic events. (C-2)

5-2.74 Identify the primary hemodynamic changes produced in myocardial infarction. (C-1)

5-2.75 List and describe the assessment parameters to be evaluated in a patient with a suspected myocardial infarction. (C-1)

5-2.76 Identify the anticipated clinical presentation of a patient with a suspected acute myocardial infarction. (C-3)

5-2.77 Differentiate the characteristics of the pain/ discomfort occurring in angina pectoris and acute myocardial infarction. (C-2)

5-2.78 Identify the ECG changes characteristically seen during evolution of an acute myocardial infarction. (C-2)

5-2.79 Identify the most common complications of an acute myocardial infarction. (C-3)

5-2.80 List the characteristics of a patient eligible for thrombolytic therapy. (C-2)

5-2.81 Describe the "window of opportunity" as it pertains to reperfusion of a myocardial injury or infarction. (C-3)

5-2.82 Based on the pathophysiology and clinical evaluation of the patient with a suspected acute myocardial infarction, list the anticipated clinical problems according to their life-threatening potential. (C-3)

5-2.83 Specify the measures that may be taken to prevent or minimize complications in the patient suspected of myocardial infarction. (C-3)

5-2.84 Describe the most commonly used cardiac drugs in terms of therapeutic effect and dosages, routes of administration, side effects and toxic effects. (C-3)

5-2.85 Describe the epidemiology, morbidity and mortality of heart failure. (C-1)

5-2.86 Define the principle causes and terminology associated with heart failure. (C-1)

5-2.87 Identify the factors that may precipitate or aggravate heart failure. (C-3)

5-2.88 Describe the physiological effects of heart failure. (C-2)

5-2.89 Define the term "acute pulmonary edema" and describe its relationship to left ventricular failure. (C-3)

5-2.90 Define preload, afterload and left ventricular end-diastolic pressure and relate each to the pathophysiology of heart failure. (C-3)

5-2.91 Differentiate between early and late signs and symptoms of left ventricular failure and those of right ventricular failure. (C-3)

5-2.92 Explain the clinical significance of paroxysmal nocturnal dyspnea. (C-1)

5-2.93 Explain the clinical significance of edema of the extremities and sacrum. (C-1)

5-2.94 List the interventions prescribed for the patient in acute congestive heart failure. (C-2)

5-2.95 Describe the most commonly used pharmacological agents in the management of congestive heart failure in terms of therapeutic effect, dosages, routes of administration, side effects and toxic effects. (C-1)

5-2.96 Define the term "cardiac tamponade". (C-1)

5-2.97 List the mechanisms by which cardiac tamponade may be produced by traumatic and non-traumatic events. (C-2)

5-2.98 Identify the limiting factor of pericardial anatomy that determines intrapericardiac pressure. (C-1)

5-2.99 Identify the clinical criteria specific to cardiac tamponade. (C-2)

5-2.100 Describe how to determine if pulsus paradoxus, pulsus alternans or electrical alternans is present. (C-2)

5-2.101 Identify the paramedic responsibilities associated with management of a patient with cardiac tamponade. (C-2)

5-2.102 Describe the incidence, morbidity and mortality of hypertensive emergencies. (C-1)

5-2.103 Define the term "hypertensive emergency". (C-1)

5-2.104 Identify the characteristics of the patient population at risk for developing a hypertensive emergency. (C-1)

5-2.105 Explain the essential pathophysiological defect of hypertension in terms of Starling's law of the heart. (C-3)

5-2.106 Identify the progressive vascular changes associate with sustained hypertension. (C-1)

5-2.107 Describe the clinical features of the patient in a hypertensive emergency. (C-3)

5-2.108 Rank the clinical problems of patients in hypertensive emergencies according to their sense of urgency. (C-3)

5-2.109 From the priority of clinical problems identified, state the management responsibilities for the patient with a hypertensive emergency. (C-2)

5-2.110 Identify the drugs of choice for hypertensive emergencies, rationale for use, clinical precautions and disadvantages of selected antihypertensive agents. (C-3)

5-2.111 Correlate abnormal findings with clinical interpretation of the patient with a hypertensive emergency. (C-3)

5-2.112 Define the term "cardiogenic shock". (C-1)

5-2.113 Describe the major systemic effects of reduced tissue perfusion caused by cardiogenic shock. (C-3)

5-2.114 Explain the primary mechanisms by which the heart may compensate for a diminished cardiac output and describe their efficiency in cardiogenic shock. (C-3)

5-2.115 Differentiate progressive stages of cardiogenic shock. (C-3)

5-2.116 Identify the clinical criteria for cardiogenic shock. (C-1)

5-2.117 Describe the characteristics of patients most likely to develop cardiogenic shock. (C-3)

5-2.118 Describe the most commonly used pharmacological agents in the management of cardiogenic shock in terms of therapeutic effects, dosages, routes of administration, side effects and toxic effects. (C-2)

5-2.119 Correlate abnormal findings with clinical assessment of the patient in cardiogenic shock. (C-3)

5-2.120 Identify the paramedic responsibilities associated with management of a patient in cardiogenic shock. (C2)

5-2.121 Define the term "cardiac arrest". (C-1)

5-2.122 Identify the characteristics of patient population at risk for developing cardiac arrest from cardiac causes. (C-1)

5-2.123 Identify non-cardiac causes of cardiac arrest. (C-1)

5-2.124 Describe the arrhythmias seen in cardiac arrest. (C-3)

5-2.125 Identify the critical actions necessary in caring for the patient with cardiac arrest. (C-3)

5-2.126 Explain how to confirm asystole using the 3-lead ECG. (C-1)

5-2.127 Define the terms defibrillation and synchronized cardioversion. (C-1)

5-2.128 Specify the methods of supporting the patient with a suspected ineffective implanted defibrillation device. (C-2)

5-2.129 Describe the most commonly used pharmacological agents in the managements of cardiac arrest in terms of therapeutic effects. (C-3)

5-2.130 Identify resuscitation. (C-1)

5-2.131 Identify circumstances and situations where resuscitation efforts would not be initiated. (C-1)

5-2.132 Identify and list the inclusion and exclusion criteria for termination of resuscitation efforts. (C-1)

5-2.133 Identify communication and documentation protocols with medical direction and law enforcement used for termination of resuscitation efforts. (C-1)

5-2.134 Describe the incidence, morbidity and mortality of vascular disorders. (C-1)

5-2.135 Describe the pathophysiology of vascular disorders. (C-1)

5-2.136 List the traumatic and non-traumatic causes of vascular disorders. (C-1)

5-2.137 Define the terms "aneurysm", "claudication" and "phlebitis". (C-1)

5-2.138 Identify the peripheral arteries most commonly affected by occlusive disease. (C-1)

5-2.139 Identify the major factors involved in the pathophysiology of aortic aneurysm. (C-1)

5-2.140 Recognize the usual order of signs and symptoms that develop following peripheral artery occlusion. (C-3)

5-2.141 Identify the clinical significance of claudication and presence of arterial bruits in a patient with peripheral vascular disorders. (C-3)

5-2.142 Describe the clinical Significance of unequal arterial blood pressure readings in the arms. (C-3)

5-2.143 Recognize and describe the signs and symptoms of dissecting thoracic or abdominal aneurysm. (C-3)

5-2.144 Describe the significant elements of the patient history in a patient with vascular disease. (C-2)

5-2.145 Identify the hemodynamic effects of vascular disorders. (C-1)

5-2.146 Identify the complications of vascular disorders. (C-1)

5-2.147 Identify the Paramedic's responsibilities associated with management of patients with vascular disorders. (C-2)

5-2.148 Develop, execute and evaluate a treatment plan based on the field impression for the patient wi 5-2.149 Differentiate between signs and symptoms of cardiac tamponade, hypertensive emergencies, cardiogenic shock, and cardiac arrest. (C-3)

5-2.150 Based on the pathophysiology and clinical evaluation of the patient with chest pain, characterize the clinical problems according to their life-threatening potential. (C-3)

5-2.151 Apply knowledge of the epidemiology of cardiovascular disease to develop prevention strategies. (C-3)

5-2.152 Integrate pathophysiological principles into the assessment of a patient with cardiovascular disease. (C-3)

5-2.153 Apply knowledge of the epidemiology of cardiovascular disease to develop prevention strategies. (C-3)

5-2.154 Integrate pathophysiological principles into the assessment of a patient with cardiovascular disease. (C-3)

5-2.155 Synthesize patient history, assessment findings and ECG analysis to form a field impression for the patient with cardiovascular disease. (C-3)

5-2.156 Integrate pathophysiological principles to the assessment of a patient in need of a pacemaker. (C-1)

5-2.157 Synthesize patient history, assessment findings and ECG analysis to form a field impression for the patient in need of a pacemaker. (C-3)

5-2.158 Develop, execute, and evaluate a treatment plan based on field impression for the patient in need of a pacemaker. (C-3)

5-2.159 Based on the pathophysiology and clinical evaluation of the patient with chest pain, characterize the clinical problems according to their life-threatening potential. (C-3)

5-2.160 Integrate pathophysiological principles to the assessment of a patient with chest pain. (C-3)

5-2.161 Synthesize patient history, assessment findings and ECG analysis to form a field impression for the patient with angina pectoris. (C-3)

5-2.162 Develop, execute and evaluate a treatment plan based on the field impression for the patient with chest pain. (C-3)

5-2.163 Integrate pathophysiological principles to the assessment of a patient with a suspected myocardial infarction. (C-3)

5-2.164 Synthesize patient history, assessment findings and ECG analysis to form a field impression for the patient with a suspected myocardial infarction. (C-3)

5-2.165 Develop, execute and evaluate a treatment plan based on the field impression for the suspected

myocardial infarction patient. (C-3)

5-2.166 Integrate pathophysiological principles to the assessment of the patient with heart failure. (C-3)

5-2.167 Synthesize assessment findings and patient history information to form a field impression of the patient with heart failure. (C-3)

5-2.168 Develop, execute, and evaluate a treatment plan based on the field impression for the heart failure patient. (C-3)

5-2.169 Integrate pathophysiological principles to the assessment of a patient with cardiac tamponade. (C-3)

5-2.170 Synthesize assessment findings and patient history information to form a field impression of the patient with cardiac tamponade. (C-3)

5-2.171 Develop, execute and evaluate a treatment plan based on the field impression for the patient with cardiac tamponade. (C-3)

5-2.172 Integrate pathophysiological principles to the assessment of the patient with a hypertensive emergency. (C-3)

5-2.173 Synthesize assessment findings and patient history information to form a field impression of the patient with a hypertensive emergency. (C-3)

5-2.174 Develop, execute and evaluate a treatment plan based on the field impression for the patient with a hypertensive emergency. (C-3)

5-2.175 Integrate pathophysiological principles to the assessment of the patient with cardiogenic shock. (C-3)

5-2.176 Synthesize assessment findings and patient history information to form a field impression of the patient with cardiogenic shock. (C-3)

5-2.177 Develop, execute, and evaluate a treatment plan based on the field impression for the patient with cardiogenic shock. (C-3)

5-2.178 Integrate the pathophysiological principles to the assessment of the patient with cardiac arrest. (C-3)

5-2.179 Synthesize assessment findings to formulate a rapid intervention for a patient in cardiac arrest. (C-3)

5-2.180 Synthesize assessment findings to formulate the termination of resuscitative efforts for a patient in cardiac arrest. (C-3)

5-2.181 Integrate pathophysiological principles to the assessment of a patient with vascular disorders. (C-3)

5-2.182 Synthesize assessment findings and patient history to form a field impression for the patient with vascular disorders. (C-3)

5-2.183 Integrate pathophysiological principles to the assessment and field management of a patient with chest pain. (C-3)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-2.184 Value the sense of urgency for initial assessment and intervention in the patient with cardiac compromise. (A-3)

5-2.185 Value and defend the sense of urgency necessary to protect the window of opportunity for reperfusion in the patient with suspected myocardial infarction. (A-3)

5-2.186 Defend patient situations where ECG rhythm analysis is indicated. (A-3)

5-2.187 Value and defend the application of transcutaneous pacing system. (A-3)

5-2.188 Value and defend the urgency in identifying pacemaker malfunction. (A-3)

5-2.189 Based on the pathophysiology and clinical evaluation of the patient with acute myocardial infarction, characterize the clinical problems according to their life-threatening potential. (A-3)

5-2.190 Defend the measures that may be taken to prevent or minimize complications in the patient with a suspected myocardial infarction. (A-3)

5-2.191 Defend the urgency based on the severity of the patient's clinical problems in a hypertensive emergency. (A-3)

5-2.192 From the priority of clinical problems identified, state the management responsibilities for the patient with a hypertensive emergency. (A-3)

5-2.193 Value and defend the urgency in rapid determination of and rapid intervention of patients in cardiac arrest. (A-3)

5-2.194 Value and defend the possibility of termination of resuscitative efforts in the out-of-hospital setting. (A-3)

5-2.195 Based on the pathophysiology and clinical evaluation of the patient with vascular disorders, characterize the clinical problems according to their life-threatening potential. (A-3)

5-2.196 Value and defend the sense of urgency in identifying peripheral vascular occlusion. (A-3)

5-2.197 Value and defend the sense of urgency in recognizing signs of aortic aneurysm. (A-3)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-2.198 Demonstrate how to set and adjust the ECG monitor settings to varying patient situations. (P-3)

5-2.199 Demonstrate a working knowledge of various ECG lead systems. (P-3)

5-2.200 Demonstrate how to record an ECG. (P-2)

5-2.201 Perform, document and communicate a cardiovascular assessment. (P-1)

5-2.202 Set up and apply a transcutaneous pacing system. (P-3)

5-2.203 Given the model of a patient with signs and symptoms of heart failure, position the patient to afford comfort and relief. (P-2)

5-2.204 Demonstrate how to determine if pulsus paradoxus, pulsus alternans or electrical alternans is present.

5-2.205 Demonstrate satisfactory performance of psychomotor skills of basic and advanced life support techniques according to the current American Heart Association Standards and Guidelines, including: (P-3)

a. Cardiopulmonary resuscitation

b. Defibrillation

c. Synchronized cardioversion

d. Transcutaneous pacing

5-2.206 Complete a communication patch with medical direction and law enforcement used for termination of resuscitation efforts. (P-1)

5-2.207 Demonstrate how to evaluate major peripheral arterial pulses. (P-1)

SECTION 2: LPC Mission Statement and LPC Planning Priorities

LPC Mission Statement

Las Positas College is an inclusive, learning-centered, equity-focused environment that offers educational opportunities and support for completion of students' transfer, degree, and career- technical goals while promoting lifelong learning.

LPC Planning Priorities

- Establish a knowledge base and an appreciation for equity; create a sense of urgency about moving toward equity; institutionalize equity in decision-making, assessment, and accountability; and build capacity to resolve inequities.
- Increase student success and completion through change in college practices and processes: coordinating needed academic support, removing barriers, and supporting focused professional development across the campus.

Explain how the equipment supports LPC's Mission Statement and Planning Priorities:

Mission Statement

Las Positas College is an inclusive learning-centered institution providing educational opportunities and support for completion of students' transfer, degree, basic skills, career-technical, and retraining goals.

Training LPC students incorporating the LP15 advanced cardiac monitor/ defibrillator (including the blood pressure, pulse oximetry, capnography, synchronized cardioversion, and pacing features) within our courses directly supports LPC's Mission Statement in providing an inclusive-learning centered institution that provides educational opportunities that utilize innovative training equipment that support the completion of student transfer degree, basic skills, career technical, and retraining goals, at pace with industry-standards while employing contemporary field tools and equipment related to patient assessment, monitoring, treatment, and reassessment.

Planning Priorities

Standard I: Mission, Academic Quality, and Institutional Effectiveness, and Integrity

Utilization of the LP 15 medical training equipment and technology supports LPC Planning Priorities by illustrating the institution ensures that its commitment to high quality education, student achievement and student learning are paramount. With more than six decades of serving EMS professionals and educators, LP 15's trusted and proven clinical performance provides improved academic quality to students during the development of their psychomotor and critical thinking skills. The LP 15 monitor is an integral patient assessment tool that incorporates the features of baseline patient assessment and reassessment as determined by EBM prehospital care standards. LP 15's innovation and technology, a dual-mode display screen providing maximum visibility, proven CPR guidance—shown to guide responders to perform compressions at 100/minute and avoid over-ventilation, functionality of the capture of all displayed waveforms and CPR quality for post-event review allow easy use for student patient care teams to focus on patients.

Standard II: Student Learning Programs and Support Services

Use of the LP 15 demonstrates the institution offers instructional programs, learning support services, and student support services aligned with its mission. The improved quality and realism of the patient assessment and cardiology simulations provided to our students in LPC's Programs would be conducted at contemporary levels of quality and rigor appropriate for higher education.

Standard III: Resources

LIFEPAK 15's state-of-the-art technology exhibits the college effectively uses its human, physical, technology, and financial resources to achieve its mission and to improve academic quality and institutional effectiveness. Specifically, regarding resources, incorporating the use of the LP 15 monitor/defibrillator in LPC pre-hospital theory courses and psychomotor skills training exemplifies the institution plans, acquires or builds, maintains, and upgrades or replaces its physical resources, including facilities, equipment, land, and other assets, in a manner that assures effective utilization and the continuing quality necessary to support its programs and services and achieve its mission. With technology resources, the college embodies the fact that technology services, professional support, facilities, hardware, and software are appropriate and adequate to support the institution's operational functions, academic programs, teaching and learning, and support services. Additionally, the addition of the use of the LP 15 in career technology Programs indicates the institution's continuous plans for, updates and replacement of technology to ensure its technological infrastructure, quality and capacity are adequate to support its mission, programs, and services.

Standard IV: Leadership and Governance

Through the Instructional Equipment Request (IER) process the institution recognizes and uses the contributions of leadership throughout the organization for promoting student success, sustaining academic quality, integrity, fiscal stability, and continuous improvement of the institution. The governance roles are defined in policy and are designed to facilitate decisions that support student learning programs and services and improve institutional effectiveness. Through established governance structures, processes, and practices, the governing board, administrators, faculty, staff, and students work together for the good of the institution. Institutional leaders create and encourage innovation leading to institutional excellence. They support administrators, faculty, staff, and students, no matter what their official titles, in taking initiative for improving the practices, programs, and services in which they are involved.

SECTION 3: Educational Items | Program Review

Specify the educational programs the equipment supports:

The LIFEPAK 15 monitor/ defibrillator supports multiple educational programs including the Emergency Medical Services and Fire Service Technology Programs:

Emergency Medical Responder (EMR) training and Certificate of Accomplishment, the Emergency Medical Technician (EMT) training Certificate of Accomplishment, competency and requirements for California state certification and county licensing, and the course preparation to become a Nationally Registered Emergency Medical Technician (NREMT), the Emergency Medical Technician-Paramedic training course completion certificate, Emergency Medical Services EMT-Paramedic - Certificate of Achievement, Emergency Medical Services EMT-Paramedic Associate of Science degree, California state certification and county licensure, and preparation to become a Nationally Registered Emergency Medical Technician (NREMT) Paramedic, and the LPC Fire Service Technology Programs Fire Academy-Fire Suppression Certificate of Accomplishment, and the Fire Technology Associate of Science degree.

Is the equipment part of an upcoming Program Review? Was it included last year? If not, why? Use language from your Program Review to explain:

Since my appointment as LPC Full Time Faculty and as the EMS Training Programs/ Paramedic Academy Director, on August 18, 2022, Emergency Medical Service (EMS) medical equipment, training tools, training platforms, technology, and supplies are identified as an important area requiring assessment, inventory, maintenance, end-of-use, and safety program review. Recently, (from the initial EMS training relocation in June 2021, Building 2100 to the Portable 100 classrooms, and after the second EMS training relocation in May 2022, from the Portable100 classrooms to the current location, the 2500 building) auditing of the LPC EMS medical equipment and supplies continues. The LP15 and additional medical equipment are necessary to include in the upcoming Program Review.

SECTION 4: Teaching and Learning

Please use evidence and data that describes how the equipment provides enhancements/benefits to the current level of teaching capabilities:

The LIFEPAK 15 monitor/defibrillator provides multiple enhancements and benefits to the current level of teaching capabilities. Currently, the EMS training program utilizes one Phillips brand Heart Start MRX cardiac monitor/ defibrillator and two Zoll brand monitor/defibrillators, a Zoll E Series and a Zoll M Series. The Heart Start MRX was donated to the LPC Paramedic Academy from West Med College, in January 2017. Manufactured in 2022, the Phillips Heart Start MRX is beyond the industry ten-year service life expectancy for monitor/ defibrillators. Additionally, its technology, features ,and capabilities do not meet today's patient assessment and patient care industry standards. Not surprisingly, the Philips monitor/ defibrillator is no longer used in the current clinical and/or prehospital field transport environment. Similarly, both Zoll monitors do not possess the additional patient assessment, monitoring, and treatment capabilities necessary for prehospital care students and/or practitioners to optimally perform baseline patient assessment. Additional LP15 benefits to teaching include improvements to scenario-based learning. Scenario-based training combines good storytelling with interactive learning. It can be particularly useful when you need to provide a dialogue and imitate a real-life situation. While it is important to eventually reach the desired goal of the course, walking learners through different scenarios exercises their decision-making and critical thinking skills. Engaging students through a narrative and allowing them to apply their knowledge helps them retain information.

Detail the impact the equipment has on learning:

The updated LP15 monitor/defibrillator enables teachers to provide instruction where students may provide more effective care with an integrated system of equipment, CPR devices, monitor/defibrillators and data solutions that help improve their ability to learn to handle time-dependent emergencies like cardiac arrest, STEMI, stroke or sepsis and other emergent care needs. The LP15 provides high energy quickly, monitors patient information such as EtC02 and can send data ahead to a receiving caregiver team to save time and help drive improved patient outcomes. The upgradeable platform adapts to evolving protocols and new care guidelines.

Multiple instructional strategies may be employed using the LP15 during training. Educators can navigate different types of scenarios with learners. For psychomotor skills scenario testing, the learner is encouraged to demonstrate skills and knowledge that have been acquired throughout the current lesson or lesson plan. An example is a cardiac rhythm interpretation and treatment training situation where the learner has to determine which patient care treatment will yield the best patient care outcome. The equipment supports instructor use of Problem Solver scenarios; situations where learners have to apply both their theoretical and practical knowledge to solve a problem. These types of scenarios test the learner's decision-making skills, ability to reason and critical reasoning capacity.

Please state the number of classes and students the equipment will impact:

Classes/Sections: 15	**Students:** 325

SECTION 5: Student Learning Outcomes (SLOs)

Document how the equipment will enable you to surpass your current Student Learning Outcomes:

The LIFEPAK 15's state of the art equipment and updated technology will enhance our ability to more realistically provide career technology patient care training to improve student critical thinking skills to surpass our current student learning outcomes throughout all of the EMS Department's courses. The following Program course SLOs as well as EMS Program and Fire Technology Program area PLOs include:

Emergency Medical Services: Course Student Learning Objectives

EMS70 - CPR for Health Care Providers
- Upon completion of EMS 70, the student shall be able to perform the CPR skills required for a Health Care Provider according to the standards of the American Heart Association.

EMS11 - Paramedic Theory 2
- Upon completion of EMS 11, the student will be able to perform the correct emergency medical treatment for the condition observed when presented with a clinical condition identified by a 12-lead electrocardiogram.
- Upon completion of EMS 11, the student will be able to read and interpret a 12-lead electrocardiogram in order to describe a syndrome under the umbrella of Acute Coronary Syndromes.
- Upon completion of EMS 11, the student will be able to formulate a differential diagnosis of the emergency syndromes when evaluating a pediatric patient with shortness of breath.

EMS13 - Paramedic Laboratory 2
- Upon completion of EMS 13, the student will be able to manage and treat an adult patient in cardiac arrest using the standards of the American Heart Association Advanced Cardiac Life Support protocols.
- Upon completion of EMS 13, the student will be able to properly identify a simulated dynamic and static electrocardiographic rhythm on a 4-lead ECG monitor and treat the syndrome signified by the ECG tracing.
- Upon completion of EMS 13, the student will be able to manage and treat a pediatric patient in cardiac arrest using the standards of the American Heart Association Pediatric Advanced Life Support protocols.

EMS12 - Paramedic Laboratory 1
- Upon completion of EMS 12, the student will be able to demonstrate the psychomotor skills related to medication administration, patient assessment, and airway management.
- Upon completion of EMS 12, the student will be able to use a variety of skills from their completed portfolio to assess a patient and carry out appropriate treatment.
- Upon completion of EMS 12, the student will be able to demonstrate the successful insertion of an intravenous catheter into a simulated vein.

EMS16 - Paramedic Clinical Occupation
- Upon completion of EMS 16, the student will be able to perform a physical examination on a live patient with their consent and identify immediate life-threatening conditions that need to be treated.
- Upon completion of EMS 16, the student will be able to deliver a patient care report to a physician, registered nurse, or paramedic that is accurate and describes the care delivered by the student.

EMS17 - Paramedic Capstone Occupation
- Upon completion of EMS 17, the student will be able to choose the appropriate medication or treatment method medically indicated for the prehospital umbrella of Acute Coronary Syndromes.
- Upon completion of EMS 17, the student will be able to choose the appropriate medication or treatment method medically indicated for the prehospital emergency encountered.
- Upon completion of EMS 17, the student will be able to demonstrate knowledge of all the prehospital treatment protocols used in the service area located where the student is performing the Capstone Internship.
- Upon completion of EMS 17, the student will demonstrate the ability to manage an emergency in the out-of-hospital setting by directing the resources of the local fire department and support personnel from the ambulance provider.

EMS10 - Paramedic Theory 1
- Upon completion of EMS 10, the student will be able to assess and discuss respiratory emergencies, and utilize airway tools to treat patients.
- Upon completion of EMS 10, the student will be able to discuss the physiology and pathophysiology of emergent medical illnesses and traumatic injuries.

EMS91 - Emergency Med. Tech- Refresher
- Upon completion of EMS 91, the student will be able to articulate the recent advances in emergency medical care within the last two years.
- Upon completion of EMS 91, the student will be able to demonstrate continued proficiency in the psychomotor skills required in their scope of practice.

EMS30 - Emergency Medical Responder
- Upon completion of EMS 30, the student will be able to implement treatment at the scope of practice of Emergency Medical Responder.
- Upon completion of EMS 30, the student will be able to recognize emergency medical illnesses and traumatic injuries.

EMS20 - Emergency Medical Technician
- Upon completion of EMS 20, the student will be able to demonstrate proficiency in the psychomotor skills required in their scope of practice.
- Upon completion of EMS 20, the student will be able to discuss the physiology and pathophysiology of emergent medical illnesses and traumatic injuries within their scope of practice.

SECTION 6: Total Cost of Ownership | Maintenance and Sustainability

Please provide the lifespan of the proposed equipment:

The anticipated lifespan of each LIFEPAK 15 monitor/defibrillator is ten years; potentially greater with daily and annual maintenance, reliable battery availability, and secure storage.

What are the requirements and associated costs for the storage of the equipment?

The LIFEPAK 15 requires secure storage while in use with EMS ALS courses and during the use and oversight with its utilization in LPC's EMS BLS programs. Secured storage areas with limited access will be identified in the Public Safety Complex EMS supply and equipment area (Fall 2023 courses). No costs beyond lock and keys are anticipated to store the LP15 monitor/defibrillators.

Is there a specific location required to store the equipment?

Note: include storage costs in Part A: Initial Start-Up Costs (pg. 10)

A specific secured storage area with limited access will be identified upon the EMS Department relocation process at completion of the Public Safety Complex, anticipated for a Summer 2023 move-in period and commencement of EMS classes in Fall 2023.

Does the new equipment replace older equipment? If so, will you retire/surplus the old equipment? If not, where will you store the older equipment and what are the associated storage costs?

The two LP15 monitor/defibrillators replace the current out-dated Zoll E and Zoll M series, and the Phillips Heart Start monitor/ defibrillator. These monitor/defibrillators do not posses the capabilities to allow the prevailing breadth of instruction necessary in our EMS courses to fulfill the program's regulating agencies' patient assessment, psychomotor skill, and treatment requirements. To provide training within the expressed evidence-based medicine (EBM) practice guidelines and skills training curriculum for students to be prepared to enter and pursue careers as pre-hospital care practitioners, monitor/ defibrillator replacement is prudent. Stryker, the LP15 vendor, has accepted the Zoll monitor/defibrillators for "trade-in" value comprised within the submitted quote.

SECTION 6: Total Cost of Ownership | Maintenance and Sustainability (cont'd)

What are the maintenance costs associated with the regular upkeep of the equipment?

As the LP15 monitor/defibrillator is an energy-delivery based life-saving piece of equipment, it utilizes intense and focused electricity delivery (during the use of the defibrillation, cardioversion, and pacing modes) For optimal performance and student safety concern, Preventative Service is within the IER: annual on-site preventative maintenance inspection and unlimited repairs including parts, labor and battery coverage for the LP15 monitor/defibrillators, and the Manual and AED, trending, noninvasive pacing, SpO2, SpCO, NIBP, 12 lead ECG, EtCO2, and temperature functions. Also included, are the 2 pr QC electrodes and test load for each device. See quote.

Detail how the equipment meets or exceeds LPC's Sustainability Efforts:

The LP15 equipment meets and exceeds LPC's sustainability efforts, as the LP15s provide a foundation for renewable resources within the EMS Department programs. These pieces of equipment meet industry and training standards and are easily maintained. The LP15s do not create trash and the monitor/defibrillators will be recycled upon the life-expentency end of their use. (as the Zoll "trade-in"). Additionally, sustainability efforts are maintained throughout their incorporation with instruction in LPC EMS courses; meaning the monitor/defibrillators will be reused by students repeatedly for up to ten years, serving thousands of students. As for basic sustainability, these pieces of equipment would not only sustain our CAAHEP Paramedic Academy accreditation requirements to provide high fidelity training, but also keep us from the necessity of seeking out alternative(s) resources for high fidelity and/ or live training that may be and could potentially become costly to the college.

How does the equipment provide renewal resources to the college?

Obtaining the LP15 equipment provides renewal resources to the college, as the LP15s provide a foundation for renewable resources within the EMS Department programs. These pieces of equipment meet industry and training standards and are easily maintained. The LP15s do not create trash and the monitor/defibrillators will be recycled as "trade-in" upon the life-expentency end of their use. Additionally, sustainability efforts are maintained throughout their incorporation with instruction in LPC EMS courses; meaning the monitor/defibrillators will be reused by students repeatedly for up to ten years, serving thousands of students. As for basic sustainability, these pieces of equipment would not only sustain our CAAHEP Paramedic Academy accreditation requirements to provide high fidelity training, but also keep us from the necessity of seeking out alternative(s) resources for high fidelity and/ or live training that may be and could potentially become costly to the college.

SECTION 6: Total Cost of Ownership | Maintenance and Sustainability (cont'd)

Part A: Initial Start-Up Costs		
Type	**Cost**	**Comments**
Equipment or Materials	$ 72,368.08	
Shipping & Delivery Fees	$ 629.40	
Installation Costs		
Miscellaneous Costs		
Modification to Facilities		
Operator Training		
Maintenance/Repair Training	$ 13,096.80	
Storage		
Other		
Discounts (enter as negative)	-$ 10,000.00	
Sub-Total	$ 76,094.28	
Taxes	$ 6,392.73	
Grand Total	$ 82,487.01	

Part B: Annual Operating Costs		
Type	**Cost**	**Comments**
Service/Maintenance		N/A
Part Replacement		
Vendor Calibration or Standardization		
Storage		
Supplies		
Maintenance/Repair Labor		
Software Licensing		
Other		
Grand Total	$ 0.00	
Overall Cost:	$ 82,487.01	

SECTION 6: Total Cost of Ownership | Maintenance and Sustainability (cont'd)

Operator	
Primary operator:	Amelia Blackshear
Does the work align with current position duties?	☑ Yes | ☐ No
Cost to train primary operator:	N/A
Approx. # of hours equipment will be used per month:	
Comments:	

Maintenance and Repairs	
Who will perform maintenance and repairs?	Stryker Preventative Service
Estimated hours per month:	N/A
Does the work align with current position duties?	☐ Yes | ☐ No
Cost to train for maintenance and repairs:	

Approvals and Signature Routing

Before signing below, please confirm all fields are filled out and all information provided is correct. Requests must be fully complete, signed, and submitted to your Division Dean by the deadline (see page 1). **Requisition and quote must be attached to this form before signing. Adobe prevents adding pages once a document has been e-signed.**

Requestor:		**Date:**	10/12/2022
Division Dean:		**Date:**	10/20/22
Vice President:		**Date:**	
College Technical Service Manager:		**Date:**	
M&O Director:		**Date:**	
Vice President, Administrative Services:		**Date:**	

LAS POSITAS COLLEGE

Office of Administrative Services

Requisition Request Form

(Wait 5-10s) Reset Submit

R_____-_____

Fiscal Year	Vendor ID #	Vendor Name	Date Required
22-23		Stryker	1/31/2023

Deliver To	Room #	Return Copy of Requisition To
Ame Blackshear		Ame Blackshear

Seq	Item #	Description	Qty	Unit Price	Extended Cost
1	99577-001958	LIFEPAK 15 V4 Monitor/Defibrillator	2	$ 33,401.54	$ 66,803.08
2	41577-000290	Ship Kit -QUIK-COMBO Therapy Cable	2	$ 0.00	$ 0.00
3	21330-001176	LP 15 Lithium-ion Battery 5.7 amp hrs	4	$ 432.75	$ 1,731.00
4	11577-000004	Station Battery Charger - For the LP15	1	$ 1,714.50	$ 1,714.50
5	11171-000049	Masimo Rainbow DCI Adult Reusable Sensors	2	$ 560.25	$ 1,120.50
6	11577-000002	LIFEPAK 15 Basic carry case w/right & left pouches	2	$ 294.75	$ 589.50
7	11220-000028	LIFEPAK 15 Carry case top pouch	2	$ 53.25	$ 106.50
8	11260-000039	LIFEPAK 15 Carry case back pouch	2	$ 75.75	$ 151.50
9	11160-000011	NIBP Cuff-Reusable, Infant	2	$ 20.25	$ 40.50
10	11160-000013	NIBP Cuff-Reusable, Child	2	$ 23.25	$ 46.50
11	11160-000017	NIBP Cuff -Reusable, Large Adult	2	$ 32.25	$ 64.50
12	TR-ZPPMD-LP15	TRADE-IN-ZOLL PROPAQ MD TOWARDS PURCHASE OF LIFEPAK 15	2	-$ 5,000.00	-$ 10,000.00
13	78000639	ProCare LIFEPAK 15 Prevent Service: Annual onsite preventive maintenance inspection and unlimited repairs	2	$ 6,548.40	$ 13,096.80
14					$ 0.00
15					$ 0.00

Comments		
	Subtotal	$ 75,464.88
	10.25% Tax	$ 6,392.73
	Shipping	$ 629.40
	Total Cost	$ 82,487.01

FOAP to be Charged				%	Amount
-	-	-	125000	100	
FUND	ORG	ACCOUNT	PROGRAM		
-	-	-			
FUND	ORG	ACCOUNT	PROGRAM		

Ame Blackshear — *Requestor (print name)*

10/21/22 — *Date*

Dean (signature)

10/20/22 — *Date*

Coordinator/Manager (signature) — *Date*

Vice President (signature) — *Date*

OFFICE OF ADMINISTRATIVE SERVICES USE ONLY

Reviewed: _____ *Administrative Services*

Verified: _____ *Administrative Services Officer*

Approved: _____ *VP, Administrative Services*

PO Number: _____ Budget Transfer #: _____ Entered: _____

TR 4/6/20

stryker

LAS POSITAS COMMUNITY COLLEGE-QTY 3
TRADE ZOLL FOR-LP 15

Quote Number: 10476609

Version: 1

Prepared For: LAS POSITAS COMMUNITY COLLEGE-LIVERMORE
Attn: Amelia Blackshear
ablackshear@laspositascollege.edu
925-785-4566

Quote Date: 10/19/2022

Expiration Date: 12/30/2022

Remit to: **Stryker Medical**
P.O. Box 93308
Chicago, IL 60673-3308

Rep: Kevin Cuneo
Email: kevin.cuneo@stryker.com
Phone Number:

Delivery Address		**End User - Shipping - Billing**		**Bill To Account**	
Name:	LAS POSITAS COMMUNITY COLLEGE-LIVERMORE	Name:	LAS POSITAS COMMUNITY COLLEGE-LIVERMORE	Name:	LAS POSITAS COMMUNITY COLLEGE-LIVERMORE
Account #:		Account #:		Account #:	
Address:	3000 Campus Hill Drive	Address:	3000 Campus Hill Drive	Address:	3000 Campus Hill Drive
	Livermore		Livermore		Livermore
	California 94551		California 94551		California 94551

Equipment Products:

#	Product	Description	Qty	Sell Price	Total
1.0	99577-001958	LIFEPAK 15 V4 Monitor/Defib - Manual & AED, Trending, Noninvasive Pacing, SpO2, SpCO, NIBP, 12-Lead ECG, EtCO2, Temp, BT. Incl at N/C: 2 pr QC Electrodes (11996-000091) & 1 Test Load (21330-001365) per device, 1 Svc Manual CD (26500-003612) per order	2	$33,401.54	$66,803.08
2.0	41577-000290	Ship Kit -QUIK-COMBO Therapy Cable; 2 rolls100mm Paper; RC-4, Patient Cable, 4ft.; NIBP Hose, Coiled; NIBP Cuff, Reusable, adult; 12-Lead ECG Cable, 4-Wire Limb Leads, 5ft; 12-Lead ECG Cable, 6-Wire Precordial attachment; Temperature Adapter Cable, 5ft	2	$0.00	$0.00
3.0	21330-001176	LP 15 Lithium-ion Battery 5.7 amp hrs	4	$432.75	$1,731.00
4.0	11577-000004	Station Battery Charger - For the LP15	1	$1,714.50	$1,714.50
5.0	11171-000049	Masimo Rainbow DCI Adult Reusable Sp02, SpC0, SpMet Sensor, 3 FT. For use with RC Patient Cable.	2	$560.25	$1,120.50
6.0	11577-000002	LIFEPAK 15 Basic carry case w/right & left pouches; shoulder strap (11577-000001) included at no additional charge when case ordered with a LIFEPAK 15 device	2	$294.75	$589.50
7.0	11220-000028	LIFEPAK 15 Carry case top pouch	2	$53.25	$106.50
8.0	11260-000039	LIFEPAK 15 Carry case back pouch	2	$75.75	$151.50
9.0	11160-000011	NIBP Cuff-Reusable, Infant	2	$20.25	$40.50
10.0	11160-000013	NIBP Cuff-Reusable, Child	2	$23.25	$46.50
11.0	11160-000017	NIBP Cuff -Reusable, Large Adult	2	$32.25	$64.50
			Equipment Total:		$72,368.08

Stryker Medical - Accounts Receivable - accountsreceivable@stryker.com - PO BOX 93308 - Chicago, IL 60673-3308

stryker

LAS POSITAS COMMUNITY COLLEGE-QTY 3
TRADE ZOLL FOR-LP 15

Quote Number: 10476609

Version: 1

Prepared For: LAS POSITAS COMMUNITY COLLEGE-LIVERMORE
Attn: Amelia Blackshear
ablackshear@laspositascollege.edu
925-785-4566

Quote Date: 10/19/2022

Expiration Date: 12/30/2022

Remit to: **Stryker Medical**
P.O. Box 93308
Chicago, IL 60673-3308

Rep: Kevin Cuneo

Email: kevin.cuneo@stryker.com

Phone Number:

Trade In Credit:

Product	Description	Qty	Credit Ea.	Total Credit
TR-ZPPMD-LP15	TRADE-IN-ZOLL PROPAQ MD TOWARDS PURCHASE OF LIFEPAK 15	2	-$5,000.00	-$10,000.00

ProCare Products:

#	Product	Description	Qty	Sell Price	Total
13.1	78000639	ProCare LIFEPAK 15 Prevent Service: Annual onsite preventive maintenance inspection and unlimited repairs including parts, labor and travel with battery coverage for LIFEPAK 15 V4 Monitor/Defib - Manual & AED, Trending, Noninvasive Pacing, SpO2, SpCO, NIBP, 12-Lead ECG, EtCO2, Temp, BT. Incl at N/C: 2 pr QC Electrodes (11996-000091) & 1 Test Load (21330-001365) per device, 1 Svc Manual CD (26500-003612) per order	2	$6,548.40	$13,096.80

ProCare Total: $13,096.80

Price Totals:

Estimated Sales Tax (10.250%):	$6,392.73
Freight/Shipping:	$629.40
Grand Total:	$82,487.01

Prices: In effect for 30 days

Terms: Net 30 Days

Contact your local Sales Representative for more information about our flexible payment options.

Capital Terms and Conditions:
Deal Consummation: This is a quote and not a commitment. This quote is subject to final credit, pricing, and documentation approval. Legal documentation must be signed before your equipment can be delivered. Documentation will be provided upon completion of our review process and your selection of a payment schedule. Confidentiality Notice: Recipient will not disclose to any third party the terms of this quote or any other information, including any pricing or discounts, offered to be provided by Stryker to Recipient in connection with this quote, without Stryker's prior written approval, except as may be requested by law or by lawful order of any applicable government agency. A copy of Stryker Medical's Acute Care capital terms and conditions can be found at https://techweb.stryker.com/Terms_Conditions/index.html. A copy of Stryker Medical's Emergency Care capital terms and conditions can be found at https://www.strykeremergencycare.com/terms.

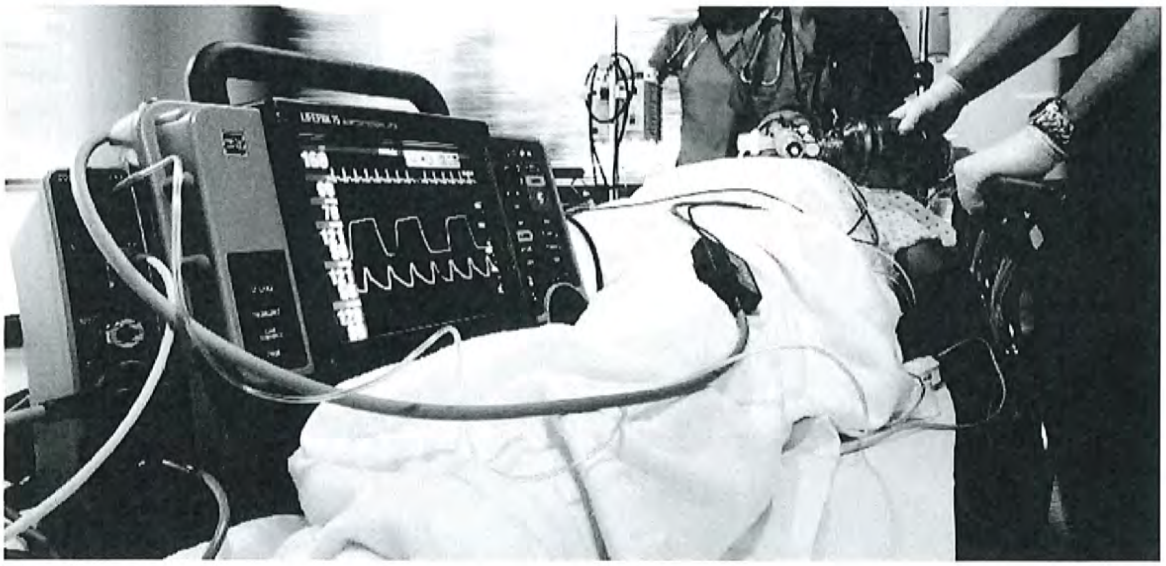
Information for **healthcare professionals**

LIFEPAK 15 monitor/defibrillator

A device by professionals, for professionals

Rely on the LIFEPAK 15 monitor/defibrillator for the highest available escalating energy and extra confidence you need during emergencies.

CONNECT WITH AN EXPERT



https://www.stryker.com/us/en/emergency-care/products/lifepak-15.html