

**EQUIPMENT NEEDS ASSESSMENT APPLICATION**  
**Fall 2017**

Name of Person Submitting Request:	<b>Tatiana Vasquez and Joan Murillo</b>
Program or Service Area:	<b>Biology</b>
Division:	<b>Science</b>
Date of Last Program Efficacy:	<b>Spring 2017</b>
What rating was given?	<b>Continuation</b>
Equipment Requested	<b>Electrocardiogram Machines</b>
Amount Requested:	<b>\$7772.35</b>
Strategic Initiatives Addressed: <a href="#">Strategic Directions + Goals</a>	Goal 1, Access Goal 2, Student Success

NOTE: To facilitate ranking by the committee, submit separate requests for each item; however, multiple items can be submitted as one request if it is required that the equipment is packaged together.

Replacement  Additional

1. Provide a rationale for your request.

Currently, the Anatomy and Physiology courses have four electrocardiogram machines that we share among the Bio 155, Bio 250 and Bio 261 students. These machines are at least fifteen years old and they are wearing out electrically. These machines are required to collect electrocardiogram waveforms (ECG's) that students have to interpret for lab, exams and as a critical skill for their allied health careers. As the machines begin to wear out electrically the waveforms get noisy and they are hard to interpret. When the machines wear out permanently they can no long be used as they flat-line. It is critical that students know how to measure, understand and evaluate ECG's before they get into their clinical professional programs. In addition, ECG machines are what students will be using clinically and universally around the world. Although these machines are expensive initially, they are virtually indestructible, they do not require software updates or maintenance once purchased, and they can be shared among the Anatomy and Physiology courses. The Human Physiology yearly budget is very minimal compared to most of the courses in the division because we use ourselves as the experiment.

2. Indicate how the content of the latest Program Efficacy Report and current EMP data support this request. How is the request tied to program planning? (*Reference the page number(s) where the information can be found on Program Efficacy.*)

3. The 2017 Program Efficacy document, Student Success p. 8 and Planning p. 19 illustrates the high demand for Registered nurses. The department is committed to expand articulation agreements to increase enrollment of high school students into allied health courses (EMP p. 2). Nevertheless, their preparation with meaningful skills for transfer and employment are required. Scientific equipment is not cheap; the funds available to the department are limited

(see Program Efficacy Report, *challenges* p. 20). Students going into the nursing program need to have an understanding of heart function. The ability to use and read an EKG machine is part of our COR for our Bio 155, Bio 250 and Bio 261 courses.

4. Indicate if there is additional information you wish the committee to consider (*for example, regulatory information, compliance, updated efficiency, student success data, planning, etc.*).

5. Evaluation of initial cost, as well as related costs (including any ongoing maintenance or updates) and identification of any alternative or ongoing funding sources (*for example Department, Budget, Perkins, Grants, etc.*).

The cost for four Schiller CARDIOVIT AT-1 EKG Interpretive Electrocardiograph machines would be \$7772.35 (\$1795/machine X 4 machines + shipping costs).

6. What are the consequences of not funding this equipment?

The consequences of not funding this equipment means that we will not have enough ECG machines to replace the older worn out machines as they fail. As a direct result of non-funding students will not be able to examine the electrophysiology of the heart.