EQUIPMENT NEEDS ASSESSMENT APPLICATION
Fall 2017

Name of Person Submitting Request:	**Tatiana Vasquez and Joan Murillo**
Program or Service Area:	**Biology**
Division:	**Science**
Date of Last Program Efficacy:	**Spring 2017**
What rating was given?	**Continuation**
Equipment Requested	**Spirogram Machines**
Amount Requested:	**$10,803.35**
Strategic Initiatives Addressed: [Strategic Directions + Goals](#)	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 X   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. In 2009, funding was approved to purchase these machines for Human physiology and they were not purchased, so we have been asking to replace these machines for seven years. These machines are required to collect lung function data that students have to interpret for lab, exams and 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 for collecting data; they flat-line. It is critical that students know how to measure, understand and evaluate spirometers before they get into their clinical professional programs. In addition, spirometer machines are what students will be using clinically and universally around the world. Although these machines are expensive initially, they are virtually indestructible and 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.)*

> 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). Any lab experiment listed in the aforementioned courses that rely upon studying and testing respiratory function will require these pieces of equipment. Therefore, the necessity of spirometers can be linked to any laboratory COR items where respiratory function is tested.

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

4. 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 Spirovit SP-1 Spirometer with SP-150 Sensor, Calibration Syringe and printer would be $10,803.35 ($2495.00/machine X 4 machines + shipping costs).

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

> We have two functional machines out of the four machines. The other two machines are falling apart. One of the poorly functioning machines buttons are broken and hard to depress and the other machine's waveforms are unstable and inaccurate to interpret. The consequences of not funding this equipment means that we will not have enough spirometer machines to replace the older worn out machines as they fail and students will not be able to examine the respiratory physiology of the body. Students need to perform this lab to understand respiration and breathing patterns.