

**EQUIPMENT NEEDS ASSESSMENT APPLICATION**  
**Fall 2015**

Name of Person Submitting Request:	<b>Lorrie Burnham</b>
Program or Service Area:	<b>Biology</b>
Division:	<b>Science</b>
Date of Last Program Efficacy:	<b>Spring 2013</b>
What rating was given?	<b>Continuation</b>
Equipment Requested	<b>Spirogram Machines</b>
Amount Requested:	<b>\$10,000</b>
Strategic Initiatives Addressed: (See Appendix A: <a href="http://tinyurl.com/15oqoxm">http://tinyurl.com/15oqoxm</a> )	<b>Strategic Goals of Student Success #2: 2.6.2; 2.6.3; 2.6.3.1 and .2; 2.6.5</b>

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, Human Physiology has four spirometry machines and these machines are at least fifteen years old, and they are starting to wear out electrically. In 2009, the instruments were approved for Human physiology but they were not purchased because budget cuts prevented funding. So we have been asking to replace these machines for six 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 and once purchased and they can be shared among the Anatomy and Physiology courses. In addition, 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 2014 Program Efficacy document, Planning Section, p17-18 illustrates the high demand for Registered nurses. 2015 EMP, Program goals, plan for re-expansion.

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 \$9053.12 ( $\$2263.28/\text{machine} \times 4 \text{ machines}$ ) + 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. 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.