

EQUIPMENT NEEDS ASSESSMENT APPLICATION
Fall 2017

Name of Person Submitting Request:	Tatiana Vasquez
Program or Service Area:	Biology
Division:	Science
Date of Last Program Efficacy:	Spring 2017
What rating was given?	Continuation
Equipment Requested	Microscopes
Amount Requested:	\$115,000
Strategic Initiatives Addressed: Strategic Directions + Goals	

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

Are there alternative funding sources? (for example, Department, Budget, Perkins, Grants, etc.)

Yes NO X

If yes, what are they? _____

1. Provide a rationale for your request. (Explain, in detail, the need for this position.)

The Biology Department's microscopes are the most commonly used pieces of scientific equipment in the department. They provide the versatility that allows students to perform qualitative and quantitative analysis of the diversity of life that cannot be encountered by any other means. The importance of microscopes to biology might be illustrated by equating them to brushes in a painting class, works of literature in English courses, or glassware to chemistry. The life expectancy of the microscopes is 10 years. Last year the Program review committee made this #1 on the list but we only received enough funds to replace microscopes in 3 of our 7 laboratory rooms. Most laboratory rooms support more than 6 sections of different courses that require microscopic experiences. The original microscopes were purchased in 1998.

2. Indicate how the content of the department/program's latest Efficacy Report and/or current EMP supports this request and how the request is tied to program planning. (*Directly reference the relevant information from your latest Efficacy Report and/or current EMP in your discussion.*)

The use of microscopes is identified explicitly and implicitly in COR's lab activities for Biology 100, 109, 155, 201, 202, 250, 251, 270. The department offers courses to meet the demands of various areas as listed here and described in our EMP p. 1 and Efficacy Report pp. 12-13. Assuming 6hrs of microscope (conservative estimate) use by each of the students, the department's microscopes accrue a per semester average use of 12700 hours, which works out to approximately 70 hours of use per microscope per semester. The increase in number of sections offered also in the past year and for the past five years (EMP p. 1) should also be noted as an increase in usage of lab equipment per student.

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

4. Indicate any related costs (including any ongoing maintenance or updates) and department/program's plans to support those costs.

New microscopes would cause a decrease in the cost of repairs; there are limited funds for maintenance of this and other lab equipment in the department. The Science division is requesting support for these costs every year.

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

Without funding these laboratory resources, many courses will be inadequate in training students for transfer to four-year universities and professional schools. The efficacy of the Department's laboratory courses is based on the availability of supplies and equipment

The last two rooms of microscopes are in various states of disrepair and definitely need to be replaced. Without replacements microscopes will need to be removed from the lab and only repaired if funds become available. This puts a strain on the classes that need those microscopes for their lab experiments, students will have to be grouped and will not get the benefit of learning the skills of using a microscope nor learning the material as well.

- Constraint microscopic laboratory exercises; negative effect on our COR commitments.
- Under preparation of Biology students in lab knowledge and skills.
- Weaken employability and/or career success of allied health students, and transfer students (Program Efficacy report p. 19).