

EQUIPMENT NEEDS ASSESSMENT APPLICATION
Fall 2016

Name of Person Submitting Request:	Jessy Lemieux
Program or Service Area:	Chemistry
Division:	Science
Date of Last Program Efficacy:	Spring 2016
What rating was given?	Continuation
Equipment Requested	Organic Pipettes
Amount Requested:	\$10,000
Strategic Initiatives Addressed: (See http://www.valleycollege.edu/about-sbvc/office-of-president/college_planning_documents/documents/strategic-plan-report-working-doc-8-25-15-2.pdf)	Access, Success, Safety

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

If yes, what are they? _____

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

This request is for organic chemistry pipettes required for the Chemistry laboratory. Organic pipettes allow for accurate measurement of small amounts of organic chemicals. In the past, (suction based) pipettes not designed for volatile organic chemicals were used. This resulted in inaccurate measurements. Furthermore, transfer of dangerous organic chemicals became an issue as the organic chemicals would leak out in mid-transfer resulting in minor safety and environmental issues. The organic pipettes are designed instead to allow for safe/accurate transfer of designated amounts of organic chemicals encouraging student laboratory success.

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.*)

One of the main focuses of the last efficacy report and current EMP is to increase the number of degrees conferred in Chemistry. Organic Chemistry is required to complete the degree and as we have increased the offerings, in response to demand, for this class, the equipment utilized by this sequence of classes needs to be upgraded.

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

Leaking organic liquids in the current pipettes is clearly not a good thing, for reasons of safety, chemical waste, and improper technique. The current pipettes are not designed for organic liquids and dissolve the plastic separators in the equipment, causing leaks and spillage of organic liquid. This is a safety hazard for students. The enrollment in Organic Chemistry also justifies the cost.

Enrollment Trends. When this building was designed, the typical offering of Organic Chemistry was one section that was on-sequence; in other words, CHEM 212 in the Fall and CHEM 213 in the Spring, for a total of 2 sections per year. In Fall 2011, when we began using the new building, we had 3 sections in the Fall and 2 sections in the Spring, for a total of 5 for the year. This already represented a 150% increase in Organic lab sections, compared to what had been offered for many years. If we further compare 2011–2012 (5 sections) to 2016–2017 (11 sections), we have doubled the number of sections offered, or have experienced another 100% increase in 5 academic years

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

The cost for a class set of pipettes is \$10,000. These should last for a few years.

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

Organic pipettes allow for accurate measurement of small amounts of organic chemicals, a necessary part of the curriculum. Furthermore, transfer of dangerous organic chemicals became an issue as the organic chemicals leak out of our current pipettes in mid-transfer resulting in minor safety and environmental issues. The organic pipettes are designed instead to allow for safe/accurate transfer of designated amounts of organic chemicals encouraging student laboratory success. Without them we will continue to offer instruction and take as many precautions as possible to minimize the risk to students with the current equipment.