

FACILITIES NEEDS ASSESSMENT APPLICATION
Fall 2017

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| Name of Person Submitting Request: | Carol Jones |
| Program or Service Area: | Chemistry |
| Division: | Science |
| Date of Last Program Efficacy: | Spring 2016 |
| What rating was given? | continuation |
| Amount Requested (if available): | \$43,000 - \$55,501 for technology (~\$8,600-\$11,100 per lab room - range due to having one vs two projectors per room) – to modernize the equipment in Chemistry lab rooms PS-310, 312, 315, 316 & 318 |
| Strategic Initiatives Addressed: Strategic Directions + Goals | 2. Promote Student Success 6. Provide Exceptional Facilities |

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

You are required to meet with Robert Jenkins--Director, Facilities, Maintenance, & Operations--prior to submitting a Facilities Needs Request. 909-384-8662 or rjenkins@sbccd.cc.ca.us. Please provide the date of your meeting:

Meeting with Bob Jenkins at 11:30 am -12:00 noon 10/06/17 in PS-318 & PS-310_____

Capital Improvement Repair

Brief Statement of Request:

This is largely a technology request that may involve some room modifications (although none were identified during my meeting the Rick and Bob). We would like the LCD projector and screen moved within all the chemistry laboratories so that it does not display over the whiteboard. Unfortunately, the screens are embedded in the ceiling and some new screens will be needed to fulfill this request. We would like one new LCD projector, mounting equipment and one new motorized projector screens for each chemistry lab room (PS-318, PS-316, PS-315, PS-312, & PS-310) to replace or complement the current projector and screen in this room. We will also need cables, a switchboard display and other accessories that are needed to make this modification possible. {PS-310 is of highest priority for this lab room modification request. }

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 project.)

Currently, instructors must choose to use the LCD projector or the whiteboard. We would like the LCD projector to project on a screen in a location that no longer blocks the whiteboard – freeing up space so that the whiteboard can be used while still using the projector.

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 Chemistry/Physical Science 2015-1016 EMP "Goals" are to "continue to improve student success" and to "increase the number of science and engineering majors to affect the economic viability of the region". Over the last few years (2012-2017) the Chemistry success rates have been about 54-60%, we are seeking innovative ideas to improve student success (EMP, action plan). The modifications to the laboratories will allow for a more interactive lecturing experience which often occurs in lab due to time constraints. The current lab setup has one large screen that completely prevents instructors from using the whiteboard and projector at the same time. This change would allow instructors more freedom of how to show material without having to choose one media source or waste time if they want to switch between technologies.

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

1. Our LCD projectors & computers in the chemistry lab rooms were installed in 2011, they are due for replacement. We would like to improve the layout in these rooms.
2. We need new screens because the old screens are embedded within the ceiling and cannot easily be moved to a new location that does not block the whiteboard.
3. Our current technology and whiteboard space in the chemistry laboratories is not as advantageous to the advancement of our students' ability to learn compared to neighboring campuses and other departments on this campus. Other campuses like RCC and UCR have newer lecture halls with a large whiteboard space and more advanced technology to assist an instructors' ability to teach. Lecture and lab rooms in the HLS building here at SBVC have also been modified to make the whiteboard space accessible while using the projectors.
4. The success rates at RCC for the 2014/2015 school year (most current data available) for introductory chemistry, general chemistry, GOB course, and organic chemistry were 57%, 73%, 72%, and 77% respectively (Dr. Leo Truttmann, Dept. Chair of Chemistry, RCC), whereas the same courses at SBVC have between 54-60% student success rates for 2012-2017. These updates will likely help our students succeed as well.
5. With the current projectors in the chemistry lab rooms the image becomes distorted when instructors must move up the screen to use the whiteboard behind it. By installing a new screen and new LCD projector instructors can now use the whiteboard and projector at the same time! Having the whiteboard available for use while using the projector screen will allow instructors to manipulate their lecturing format to maximize student learning.
6. A rolling whiteboard has been used to gain additional board space in laboratories but this is proving to be a safety issue as the legs of the rolling whiteboards can be tripping hazards in the lab room. Additionally, the rolling whiteboards have occasionally been accidentally placed in front of a lab's safety shower – making them a safety hazard preventing students and faculty from rapid access to the shower in the event of an acid spill or fire on one's body. This lab modification makes learning more interactive, keeps students more engaged and therefore is expected to increase success rates.

4. What are the consequences of not funding this facilities request?

Success Rates will likely remain around 54-60% for chemistry courses without funding of this classroom modification. Students require constant interaction in conceptual learning and problem solving of chemistry and related topics for effective learning and will struggle more often to understand concepts without the interactive nature of this media.