FACILITIES NEEDS ASSESSMENT APPLICATION
Fall 2017

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):	**$23,039.44 for technology to modernize the equipment (LCD projectors and add new screens) in PS-228**
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 X☐   Repair ☐

Brief Statement of Request:

> This is a technology request that may require some room modifications, but no facilities changes were identified during our meeting. We would like two new LCD projectors, mounting equipment and two new motorized projector screens for PS-228 to replace (or complement) the current projector and screen in PS-228. We will also need cables, a switchboard display and other accessories that are needed to make this modification possible.

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 project.)

> We would like to make PS-228 a lecture hall with the ability to use multiple forms of "communication" with our students at one time. Currently, the LCD projector screen blocks the whiteboard. This modification will allow instructors to use the computer to display a PowerPoint presentation along with the use of the document camera to show a demonstration or other use and still have the whiteboard accessible for quick use.

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.)*

Our 2015-2016 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%, the chemistry department seeks innovative ideas to improve student success (EMP, action plan). The modifications to the classroom will allow for a more interactive lecturing experience. The current set up has one large screen that almost completely prevents instructors from using the white board. The new split screens will allow instructors to use different technologies at the same time (one screen for the computer to show PowerPoint slides or videos, and the other screen for the document camera to show a molecular model, demonstration, etc.; or the option of using only one screen, freeing up the other side to use the white board space. Instructors would be able to present material to students without having to choose one media source or waste 2-3 minutes of time each time they want to switch between different 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 projector & computer in PS-228 were installed in 2011, they are due for replacement. We would like to improve the layout and technology in this room.
2. Our current technology and whiteboard space in PS-228 is not as advantageous to our students' ability to learn compared to neighboring campuses. Other campuses like RCC and UCR have newer lecture halls with a large whiteboard space and more advanced technology to assist in an instructors' ability to affectively teach. One of UCR's lecture halls has three separate projectors and screens and an entire wall of whiteboard space, permitting use of a document camera, PowerPoint, with no time lag, in addition to the whiteboard. At RCC, all the chemistry lecture rooms have lots of whiteboard space as well as built-in tablets that are attached to the classroom computer which allow instructors to digitally ink the screen.
3. The ability to use two different screens at one time will allow instructors the flexibility to manipulate their lecturing format to maximize student learning. This update will make learning more interactive, keeps students more engaged, and is expected to increase success rates. The success rates at RCC for the 2014/2015 school year (most current data) 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. We have a similar population of students and this modification will likely help our students succeed.

With the current projector in the classroom, instructors have been projecting an image that becomes distorted when instructors move up the screen to use the whiteboard behind it. With two projectors and screens in the room – instructors can keep one screen down and use the other to show the problem-solving process on the other screen or on the whiteboard.

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. This classroom modification makes learning more interactive, will keep students more engaged and is expected to increase success rates.