

FACULTY NEEDS ASSESSMENT APPLICATION

Name of Person Submitting Request:		Achala D. Chatterjee
Program or Service Area:		HVAC/R
Division:		Applied Technology, Trans., & Culinary Arts
Date of Last Program Efficacy:		Spring 2011
What rating was given?		Continuation
# of FT faculty 0	# of Adjuncts: 7	Faculty Load: 3.34
Position Requested:		One Tenure Track Faculty Position
Strategic Initiatives Addressed:		5.2.4

Replacement X (The position was eliminated after 2010 SERP) Growth

1. Provide a rationale for your request.

A full time faculty is needed for a program with current FTEF of 3.34 and average FTEF of 3.94 over five years. The Heating Ventilation and Air Conditioning (HVAC) Occupational Outlook report for Riverside and San Bernardino County, prepared by the Center of Excellence in April 2012, “indicate(s) a healthy 5% growth in the year 2011-16.” HVAC/Refrigeration Installer and Mechanics accounted for more than 2,760 jobs. By the year 2016, the total job openings are projected to increase by 127 new jobs and 198 replacement jobs. One of the important findings of the study is that “(n)on-residential plumbing and HVAC contractor firms will grow by 20% over the five year period” and “residential work will contract by 2%.” The non-residential HVAC is increasingly utilizing smart building technology and automation. Thus, the traditional curriculum in the division needs to incorporate automation used in commercial buildings. Without a full time faculty, it is very difficult to grow or build a program, update curriculum and the lab. The division dean has been working with faculty and CTE dean at Mount San Antonio College (Mt. SAC) to create a common curriculum of core courses. Mt. SAC has labs, equipment, and curriculum to provide training in Smart Technology that is used in energy efficient, commercial buildings. During the transition, we would like SBVC students to continue the program with courses in smart technology at Mt. SAC, after completing the certificate course at SBVC.

The Inland Empire (IE) is known for extremely hot weather in the summer months where air conditioning is a necessity rather than a luxury. Many warehouses that dot the landscape in the IE need the services of HVAC/R technicians to keep the perishable goods at the right temperature. The changes in weather patterns also indicate a warmer and drier climate than in the past, thus necessitating more energy efficient heating and cooling systems. A fulltime faculty is needed to coordinate these changes to meet the regional needs for HVAC technicians.

The program has a single lab equipped with old technology. All seven courses in the program are lab based. The division can only offer one lab course per evening. This semester we added a Saturday class to try to add a section. A full time faculty can offer courses during the daytime to make lab use more efficient. The division dean has worked hard to update the lab by soliciting donations from local industry. A subject matter expert is required to help identify the equipment needs, provide inputs to write grants and to set up a standard teaching lab and maintain it.

The adjunct faculty members are a mix of local HVAC business owners and those who work for larger companies. So far we have been unsuccessful in recruiting an adjunct faculty who can teach during the day.

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.*)

Between 2010 and 2013, the number of sections was cut from 14 to 10. Without a full time faculty, it is not possible to offer any day classes, and without an additional lab it is not possible to offer more than one class per evening. The number of students in the program has decreased by 25%. It takes a student three semesters to complete the certificate, but by offering more courses per semester, it could be reduced to two semesters. The WSCH/FTEF has improved significantly to 425, which is an acceptable number for a program with a high lab component. The student success rate is 86% and it exceeds the campus average. The number of certificate awarded has decreased in the last three years and correlates exactly with cuts in sections and loss of the only full time faculty. It is not possible to sustain a program of this size and complexity without a full time faculty, let alone grow it to its full potential.

A major weakness of the program, as identified on page 5 of the efficacy report, is that there is no plan to recruit under-represented population and no plans to acquire newer, more current equipment. Weaknesses in both these areas will be addressed by hiring a full time faculty. Women and those who depend on public transportation tend to enroll in day classes. Without inputs and help from a full time subject matter expert, it is not feasible for a dean to carry out major changes to a lab or to help write grant proposals.

3. Provide updated or additional information you wish the committee to consider (*for example: regulatory information, compliance, updated efficiency, student success data, or planning, etc.*).

The HVAC/Refrigeration program has provided training at Valley College for over forty years. The program has been under the tutelage of Electrical/Electronics Department and has never received appropriate care, respect or attention for many years. There is no Perkins grant for the program and the department budget is very low for a lab intensive program. In 1991 one full time faculty with specialization as an Electrician was hired as a full time HVAC/R faculty. He retired in 2010 and the position was eliminated. Other events have also left scars on the program:

- The move from old North Hall to Tech Division into an unfinished lab facility in 2008,
- The lab and outdoor patio were never completed and remain unfinished, and
- HVAC/R was one of the seven programs identified for discontinuance in 2010.

Last year, SBVC applied for the Trade Adjustment Assistance Community College and Career Training Grant in partnership with ATTC and the College of the Desert. This grant is for development of nationally portable certificates that meet industry specifications and job demands in areas such as Machine Technology, HVAC/R, Welding, and Water Technology. We were not successful in obtaining the grant but plan to apply for it again this year. There will be an infusion of resources and funding in the program and the division when we obtain the grant.

4. What are the consequences of not filling this position?

The program is not sustainable without the guidance of a full time faculty with subject matter expertise. It is slowly deteriorating and losing enrollment. There are three programs in the IE offering this type of training, and there is a strong community need for HVAC. If a full time faculty is not hired, the effect would be a slow and steady discontinuance of the program.