

## FACULTY NEEDS ASSESSMENT APPLICATION

Name of Person Submitting Request:		<b>Achala D. Chatterjee</b>
Program or Service Area:		<b>Machine Technology</b>
Division:		<b>Applied Technology, Transportation and Culinary Arts</b>
Date of Last Program Efficacy:		<b>Fall 2005 - program was on hiatus</b>
What rating was given?		<b>N/A</b>
# of FT faculty 0	# of Adjuncts 3	Faculty Load: 3.08 (average for 5 yrs. = 4.26)
Position Requested:		<b>One Full time faculty</b>
Strategic Initiatives Addressed:		<b>3.2, 4.2.1,</b>

Replacement  (2010 SERP retirement; position was eliminated) Growth

1. Provide a rationale for your request.

The stereotypical view is that all manufacturing jobs have gone abroad. However, 10 million Americans work in manufacturing now and there will be 3 million openings between now and 2018. In order to nurture and grow the program to its full potential, and take full advantage of the resurgence in manufacturing, one full time faculty is required. Currently the dean acts as a department chair for this program (and two others), orders supplies and parts to repair and maintain machines, coordinates curriculum updates, holds advisory board meetings, and does other duties that are within faculty purview.

After a decade of losing manufacturing jobs, the numbers have started to increase. It is again becoming profitable to manufacture in the USA due to multiple reasons: (1) the cost of energy is rising, (2) the cost of labor in China is going up and US labor costs are stagnant or falling, (3) the Chinese Yuan is stronger (making goods more expensive), and (4) ongoing issues with quality control and patent infringements within manufacturing facilities outside of the US,

In 2010-11, the machining program was slated for discontinuance, put on hiatus, and the number of courses offered was reduced drastically. Sections were cut in half.

The curriculum for the program was updated with help of part time faculty but still needs improvement that only a full-time faculty can provide. A pilot program, launched in partnership with the Professional Development Center (PDC) and California Steel Industries (CSI) last year, provides paid internships for students to become machine maintenance technicians and has been very successful in placing students to work. It is going to be offered again in summer 2014 and our plan is to train 20 interns while being paid. It is crucial that this partnership continue, and only a full-time faculty can ensure its longevity and integrity.

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.*)

A program efficacy report was not done as the program was slated for hiatus. Since fewer courses were offered, the program went from an FTEF of 5 to 3 between academic years 09-10 and 11-12, and the FTES declined from 58 to 40 during that time. However, the WSCH/FTEF improved from 329 to 400. In spite of no advertising and no proponent for the program, the program is attracting students from *industry*, as well as returning students. The curriculum is still being updated. Different programs within the division are working together to build a Machine Maintenance Certificate. Among the skills required for a machine maintenance

mechanic are skills in electrical, welding, machining, plumbing, and engine repair/rebuild. Per the Center of Excellence environmental scan for Water Technology in Southern California, there is replacement job growth of 27% for machine mechanics (page 27)

[http://www.coecccc.net/Environmental\\_Scans/w-ww\\_scan\\_socal\\_11.pdf](http://www.coecccc.net/Environmental_Scans/w-ww_scan_socal_11.pdf)). No other public colleges in the surrounding area provide the machine maintenance training. Laney College has already developed a stackable Industrial Maintenance certificate. We would like to model our program after the Laney model. However, in order to carry out these changes, a faculty with subject matter expertise is required. A dean, no matter how enthusiastic, is a poor proxy to carry out the tasks of developing a curriculum for a new program or reviving a wounded but necessary program.

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.*).

A full-time faculty is necessary to replace a retired faculty and ensure the growth and integrity of the program. In 2010, the fulltime faculty in the Machine Technology Department retired. He is now the president of a 501(c) 3 company, called Technical Employment Training (TET), where incumbent workers are trained in machining. The program at TET was built with resources from the now defunct Fontana High School Machining program. Two of the HAAS CNC machines, originally loaned to SBVC, were recalled by HAAS and moved to TET in 2010. This year the division dean has been in contact with the director of HAAS. The director was under the impression that the machining program at SBVC had closed down and thus the HAAS CNC machines were moved to TET. The dean is working with HAAS to bring the newest equipment back to SBVC on loan. Some of the department's assets have been lost, yet a lot remains. More than two million dollars of equipment in the machine shop acquired over the last 40-50 years would be impossible to replace once it is allowed to leave the college. In the 2012-13 academic year, PDC paid \$70,000 to TET to conduct machining outreach activities for machining at elementary schools under the SB-70 grant. This activity could easily be conducted by the Machine Technology Department if it had a full time faculty to coordinate such an activity.

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

If a full time faculty is not hired, the program will die a slow, prolonged death. Without a full time faculty, it would be very difficult for the department to survive the external threat from TET and the internal threat from Program Viability/Discontinuance committee. A program without a full time faculty sees disproportionate cut in FTES. The Professional Development Center (PDC) at SBCCD provides physical resources and grant money to TET to promote manufacturing to middle school students and attract the students to the TET machining program. The dean is trying to bring those resources and grant money back to SBVC so that the PDC/district money is utilized to promote machining program at SBVC and not the machining program at TET. If the SBVC program is allowed to die, then TET will be the only game in town and they will be able to charge high fees, like many private training centers. That would be a big disservice to our immediate community. In order to continue this program, a full time faculty is needed. The blue-collar community that surrounds our college needs strong publicly funded CTE programs that help students learn skills that enable them to earn a living wage. Blue-collar jobs with these types of skills are the first step towards a middle class life and improved area economic health.