

FACULTY NEEDS ASSESSMENT APPLICATION

Name of Person Submitting Request:		Achala D. Chatterjee
Program or Service Area:		Machine Technology
Division:		Applied Technology, Transportation and Culinary Arts
Date of Last Program Efficacy:		Spring 2012 - None done since the program was put on hiatus for further review
What rating was given?		N/A
# of FT faculty 0	# of Adjuncts 3	Faculty Load: 3 in 11-12; 5 – in 9-10
Position Requested:		Full time faculty
Strategic Initiatives Addressed:		4.2, 5.1

1. Provide a rationale for your request.

Stereotype 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. After a decade in which we lost many manufacturing jobs the numbers have just started to increase. With the cost of energy going up, the cost of labor rising in China, the strength of yuan rising (making goods more expensive,) and issues with quality control and patent infringements, it is once again becoming profitable to manufacture in the USA instead of China.

Two years ago, the machining program was slated for hiatus and the number of courses offered was reduced drastically. Thus the FTEF reduced from 5 to 3 from academic year 9-10 to 11-12 and the FTES also went down from 58 to 40.

The curriculum for the machining was updated and now the dean is collaborating with local industries to create a new machine maintenance program. Local industries such as California Steel in Fontana would like to provide internship for our students who complete machine maintenance program. California Steel currently goes to the Midwestern cities in Indiana, Ohio, and Michigan to fill its need for Maintenance mechanics. Fender Music is sending students to us to provide training for precision machining for guitar parts.

In order to grow the program to its full potential one full time faculty is required. Currently the dean acts as a department chair for this program (and two others). The dean orders supplies, parts to repair and maintain machines, coordinate curriculum updates, hold advisory board meetings, help write and help evaluate SLOs and other duties that are within faculty purview.

2. Indicate how the content of the latest Program Efficacy Report and/or most current EIS 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.*)

Program efficacy report was not done as the program was slated for hiatus. Since fewer courses were offered, the program went from FTEF of 5 to 3 between academic years 9-10 and 11-12 and the FTES also went down 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* and returning students. The curriculum has been 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, 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.coeccc.net/Environmental_Scans/w-ww_scan_socal_11.pdf). No other college in the surrounding area provide the machine maintenance training. Laney College has already developed a stackable Industrial Maintenance certificate which is very successful. We would like to model our program after the program at Laney College. 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 substitute to carry out the tasks of developing curriculum for a new program.

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

In 2010 the fulltime faculty in the Machine Technology Department retired. He is now the president of a new 501(c) 3 company, called Technical Employment Training (TET), where incumbents workers are trained in machining. The program at TET was built with resources from the Fontana High School Machining program which closed down in 2009 when the same faculty retired from the Fontana High School. Two of the HAAS CNC machines which were loaned to SBVC were recalled by HAAS and moved to TET in 2010. This year the division dean spent time talking to the director of HAAS, Peter T. Zeirhut, at the Manufacturing Conference in Ontario. Mr. Zierhut 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. If this program is allowed to close, the college will not be able to start a new machining program ever. More than two million dollars worth 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.

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. Currently TET offers classes for free, but once their grant source dries up, they will charge fee for the program. If the SBVC program is allowed to die, then TET will be the only game in town and they will be able to charge fees just like any private training centers. That would be a big disservice to our immediate community. Thus it is very important to hire a full time faculty for the machining program.