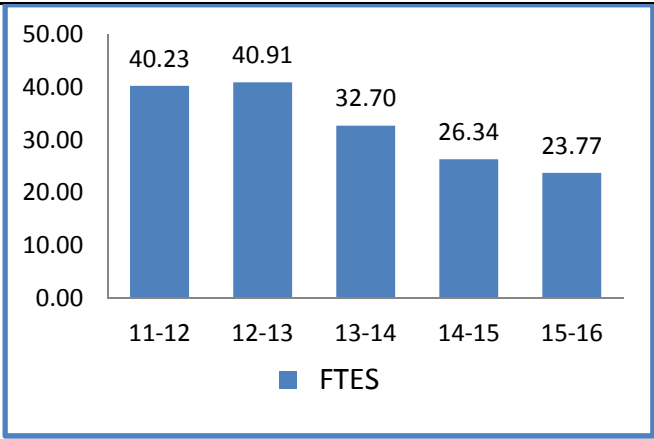


MACHINIST TECHNOLOGY — 2015-2016

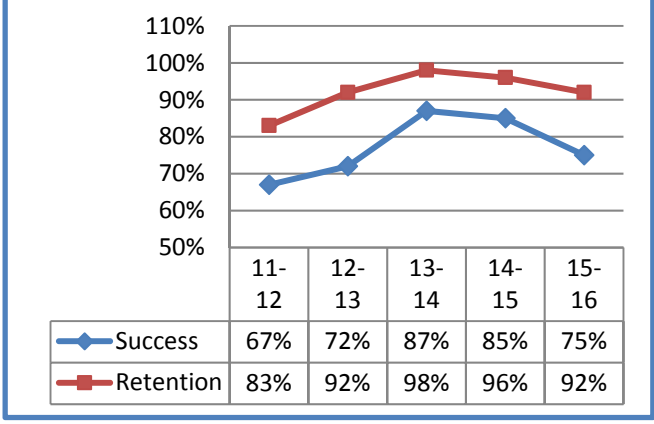


Description:
 The Machinist Technology program is designed to train first-time students and to re-train those employed in several fields of the machine trades industry. Curriculum includes: Conventional Machining, Computer Numerical Control (CNC), Computer -Aided Drafting (CAD), Computer-Aided Manufacturing (CAM), Tool & Die, Metrology, Inspection, and Print Reading. The program offers an A.S. degree and certificates in Machinist Technology. The program offers students the opportunity to obtain National Industry Metal Skills (NIMS) credentials accredited by the American National Standards Institute (ANSI).

Assessment
 Based on enrollment trends, course prerequisites prevented students from taking machine-related courses. This has resulted in low enrollments and class cancellations. After careful evaluation and consideration, it was determined that removing the prerequisites will not affect the successful learning outcomes of the student, thus the prerequisites to the courses have been removed and have gone through the curriculum approval process. Hopefully, the changes will be reflected on the Fall 2017 college catalogue and class schedule. FTEF declined as a direct result of three adjunct instructors not returning due to availability issues as all of them have full-time employment outside of their teaching career. FTEF also dropped due to less section being offered and the challenge of finding qualified adjunct instructors. However, the WSCH per FTEF has increased due to the interest shown by current students to learn in the program and the quality instructions being provided by the faculty (who recently became a full-time faculty) who taught most of the Machinist Technology classes that were offered.

	10-11	11-12	12-13	13-14	14-15	15-16
Duplicated Enrollment	260	206	220	190	141	133
FTEF	4.69	3.02	3.08	3.10	3.10	2.26
WSCH per FTEF	320	400	399	316	255	316

Department Goals:
 1) Update Tool and Die curriculum with NIMS standards and offer Mach 061 Jig and Fixture Making and Mach 160 Tool and Die courses. These specialized courses are required to obtain degree and/or certificate for tool and die program (these courses have not been offered in more than three years); 2) Develop curriculum and add sections for advanced manufacturing in automated and robotics manufacturing; 3) Certify Machinist Technology faculty with NIMS Industry-recognized certifications; 4) Increase program awareness, partnerships with industry and improved networking with the community and local high schools, continuations, and options for youth; 5) Develop new curriculum for Quality Control Inspectors Certificate; 6) Increase qualified Adjunct Instructor pool.



Challenges & Opportunities:
 1) The program has three out of eight Computer Numerical Control (CNC) machine tools that are operational, we are using the latest revisions of the software programs being used in the lab. This keeps the advanced manufacturing program meeting industry standards and demands. However, since the program has not implemented any new machine tools since 2008, the program desperately needs to update to the newer machine tools such as the multi axis, five axis, to keep current with the industry trends; 2) There are not enough CNC machine tools for the students to learn hands-on in the lab. The program needs to acquire more CNC machine tools, automated, and robotics equipment. Current conventional, CNC machine tools, and inspection technology are needed to be modernized or upgraded; 3) We need to further promote our programs to the feeder high schools and the community to increase enrollment; 4) We need to recruit and increase our qualified Adjunct Instructor pool.

The program will continue to seek external funding through grants and will also actively participate in proposing our program needs through the \$200M Strong Workforce Program in addition to the annual Program Review process. We will continue to collaborate with the SBVC Marketing and Outreach Department in promoting our programs. We will also recruit qualified Adjunct Instructors through job fairs and referrals from our industry partners and advisory board.

MACHINIST TECHNOLOGY — 2015-2016

	10-11	11-12	12-13	13-14	14-15	15-16
Sections	27	16	17	16	17	15
% of online enrollment	0%	0%	0%	0%	0%	0%
Degrees awarded*	2	0	2	4	3	
Certificates awarded*	8	10	21	3	9	

Award Source:
http://datamart.cccco.edu/Outcomes/Program_Awards.aspx
 TOP Code: 095630/095600
 *Data will be available in October 2016

- Action Plan:**
- 1) Develop advanced manufacturing curriculum to meet the needs of the industry;
 - 2) Work with advanced manufacturing initiatives and explore grant opportunities to obtain external funding to acquire new equipment and other program needs;
 - 3) Explore faculty internship at local companies to keep current with industry as well as attempt encourage incumbent workers to enroll in our program;
 - 4) Work with the high schools to streamline career pathways and dual enrollment;
 - 5) Participate in career and technical education events to further promote our program in collaboration with our SBVC Marketing and Outreach Department.
 - 6) Collaborate with our HR Department to widely publicize our Adjunct Instructor job posting to the specific trade industry and employers in order to recruit qualified Adjunct Instructors to increase our instructor pool.