

Santa Rosa Junior College

Program Resource Planning Process

Advanced Manufacturing Technology 2021

1.1a Mission

Our Machine Tool Technology program mission continues to revise, update, and improve student educational methods to ensure that manufacturing instruction is current with the technological advances required by industry. Robotics, CNC-Computer Numerical Control, and basic machining knowledge is required by engineers and designers that format our future machinery products, machinists, tool and die product and basic machine operators.

It is our mission as career and technical education instructors is to provide the most current educational training and services to new students and those returning to school in order maintain their employment edge and therefore contribute to the continuing improvement and competency of our work force within Sonoma County, California, national and international.

We pledge to work closely with local industry leaders to make sure our programs consistently educate students to meet current industry standards and maintain close ties with local area high schools.

We offer a learning environment that is open and affirming to all students, provide safety and environmental education as it relates to each program. Our instructional programs must be flexible to the needs of all students entering their chosen occupational fields and foster learning environments that allow each student to develop the necessary skills to achieve their educational goals. It is important that faculty provide instruction that reflects the latest industrial advancements, update program curriculum, and provide the latest equipment to maintain our individual laboratories. Our programs must meet the increasing and evolving environmental public requirements.

1.1b Mission Alignment

The Machine Tool Program pedagogy of "learning by doing" encourages that the program must continually re-engineer basic training concepts, in order to meet current technological requirements. Basic machining knowledge applies not only to the machining industry but automotive, diesel, and the necessary engineering design concepts that must apply to creating any new product that will require building a machine to produce such products.

Future planning for our program will consist of creating a working model that will bring in and align simple basic jobs from local industry and charging a minimal fee to cover material and parts. Students will continue to learn while earning, along with necessary job demands by working with local industry thus providing student skills with hands-on training of various manufacturing processes, allowing the student to be more competitive in the job market. Our program will gain some additional funding to assist with program upgrades, and local industry will have input opportunity, hire students trained from our program, and by providing minimal jobs at low cost, save money. the long term goal of the progra is to incorporate all programs into a manufacturing center serving the North Bay region.

1.1c Description

Machinist skills are often called a “trade within a trade” but many industries (view table below) require this vital skill such as robotics, agriculture, manufacturing, aircraft, film and electronics. A Master Machinist, Tool & Die Maker, or Machinist might have produced the die, mold, prototype, or machine to produce every day products.

Machinists set up and operate a variety of machine tools to produce precision parts and instruments. Include precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures

The Machine Tool program provides instruction on manual and CNC lathes and mills for regional industry and those interested in learning manufacturing skills. In order to ensure that our manufacturing instruction is current with the technological advances required by industry, our program continues to revise and update the necessary educational skills for our students to meet those required skills. Robotics, CNC-Computer Numerical Control, basic machining knowledge is required not just for machine operators but by engineers and designers that format our future machinery.

1.1d Hours of Office Operation and Service by Location

In order to reach as many students as possible, the Machine Tool program offers day and evening classes.

The service center is located in the Lounibos Center Building, the administrative office hours are 8:30 am to 12:30 pm Monday through Friday. The service center serves the Automotive, Diesel, Machine Tool, and Welding (effective Fall 2011) Programs.

1.2 Program/Unit Context and Environmental Scan

The machine tool program class size is normally 13 to 17 students per class. We have a lower size due to

| California industries that employ machinists: | | |
|--|------------------------|------------------|
| Industry Title | Number of CA Employers | Percent of Total |
| Machine Shops and Threaded Products | 4,645 | 33.40% |
| Aerospace Product & Parts Manufacturing | 298 | 8.70% |
| Employment Services | 7,273 | 8.50% |
| Electronic Instrument Manufacturing | 906 | 3.10% |
| Metalworking Machinery Manufacturing | 816 | 3.00% |
| Semiconductor and Electronic Components | 2,011 | 2.90% |
| Other Fabricated Metal Product Mfg | 821 | 2.70% |
| Medical Equipment and Supplies Mfg | 3,997 | 2.60% |
| Other General Purpose Machinery Mfg | 1,045 | 2.10% |
| Architectural and Structural Metals | 2,181 | 1.90% |
| Ship and Boat Building | 136 | 1.30% |
| Electrical Equipment and Appliances | 1,066 | 1.20% |
| Industrial Machinery Manufacturing | 335 | 1.20% |
| Commercial Machinery Repair/Maintenance | 2,472 | 1.00% |
| Machinery & Supply Merchant Wholesalers | 11,528 | 1.00% |
| Other Miscellaneous Manufacturing: <ul style="list-style-type: none"> • Sign Manufacturing • Jewelry (except Costume) Manufacturing • Sporting & Athletic Goods Manufacturing | 6,566 | 1.50% |

limited:

- Staffing to monitor student safety while operating machinery and to safeguard the equipment due to the high cost of repair and replacement
- Training space

The limited number of machines affects the students ability to get hands-on experience. Our enrollment efficiency has never dropped below 85.5% and has been as high as 106.5%

Quote from the California Community Colleges Chancellors Office, Economic Development and Workforce Preparation website (ccco.edu).

"Multiple strategies are used to enable the colleges to provide critical development services to employers and communities, to increase economic success, and to support excellence in Career Technical Education and training for individuals entering the workforce, as well as incumbent and re-entry workers"

In order to achieve the above strategies, improve our retention, and expand course offerings this machine tool technology program requires a three-six-ten year plan to develop a working training model:

- Create a working "learn by doing" education model and bring in local industrial manual and CNC jobs for a minimal fee
- Create a training program for students that show potential, have completed their basic training courses and hire for a short term as training assistants
- Seek CTEA and other grant funding to assist with the formulation of the training module
- Seek local industrial funding via machinery donations (in Progress)
- Better assess the industrial community needs by revitalizing the advisory committee with current industry representatives.
- Encourage and invite our local industrial community to have the opportunity to become involved by providing technology input, possible donations, and involve new ideas to our advisory program
- Increase the amount of available machinery for student use
- Add a full and part-time certified industry current instructors
- Utilizing our existing space by enclosing the CNC lab; allowing us to run manual and CNC classes at the same time
- Expand out the north wall of Lounibos and create another class room, as all the class rooms in the area are outdated and not conducive to learning

We have no Petaluma classes as there is no shop space at the Petaluma campus.

2.1a Budget Needs

We need increased repair and maintenance funding. Our machines are old (many 40 to 70 years) and in constant need of servicing. We do most of the labor ourselves, but there is little or no funding to pay staff to do the repairs (which saves us thousands of dollars compared to having an outside contractor do the work). Enhancement of the program supplies budget by \$5,000 per year and the equipment maintenance budget by \$20,000 per year for parts and allied faculty labor would bring the program to more efficient and safe operating levels.

A repair budget, to be used by all Industrial & Trade Technology programs, that would be allowed to roll-over into the next fiscal year would be very beneficial. It could be used, for example, to repair the water treatment system, forklift, and other major equipment used by all Lounibos programs. The way the budget is currently set up, the funds are "use it or lose it". Some years we go through our entire repair budget plus a lot more, while other years we barely tap into this fund. If we could have a rollover budget of \$2,000 a year, it would build up funds and avoid scrambling for money when the inevitable expensive, major repairs are needed.

Santa Rosa Junior College - Program Unit Review

Machine Tool Technology - FY 2019-2020

2.1 Fiscal Year Expenditures

Santa Rosa Campus

| Expenditure Category | Unrestricted Funds | Change from 2018-19 | Restricted Funds | Change from 2018-19 | Total | Change from 2018-19 |
|--------------------------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|
| Faculty payroll | \$84,531.00 | -35.67% | \$0.00 | 0.00% | \$84,531.00 | -35.67% |
| Adjunct payroll | \$56,817.67 | -13.55% | \$0.00 | -100.00% | \$56,817.67 | -11.19% |
| Classified payroll | \$0.00 | 0.00% | \$25,967.65 | 22.12% | \$25,967.65 | 22.12% |
| STNC payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Student payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Management payroll (and Dept Chairs) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Benefits (3000's) | \$46,767.90 | -27.46% | \$11,325.46 | 33.93% | \$58,093.36 | -20.34% |
| Supplies (4000's) | \$14,089.99 | -23.25% | \$0.00 | -100.00% | \$14,089.99 | -27.72% |
| Services (5000's) | \$10.58 | -99.33% | \$0.00 | 0.00% | \$10.58 | -99.33% |
| Equipment (6000's) | \$0.00 | 0.00% | \$16,159.28 | -95.29% | \$16,159.28 | -95.29% |
| Total Expenditures | \$202,217.14 | -28.17% | \$53,452.39 | -85.63% | \$255,669.53 | -60.87% |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Expenditure Category | Unrestricted Funds | Change from 2018-19 | Restricted Funds | Change from 2018-19 | Total | Change from 2018-19 |
|--------------------------------------|--------------------|---------------------|------------------|---------------------|---------------|---------------------|
| Faculty payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Adjunct payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Classified payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| STNC payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Student payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Management payroll (and Dept Chairs) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Benefits (3000's) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Supplies (4000's) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Services (5000's) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Equipment (6000's) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Total Expenditures | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |

Other Locations (Includes the PSTC, Windsor, and other locations)

| Expenditure Category | Unrestricted Funds | Change from 2018-19 | Restricted Funds | Change from 2018-19 | Total | Change from 2018-19 |
|--------------------------------------|--------------------|---------------------|------------------|---------------------|---------------|---------------------|
| Faculty payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Adjunct payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Classified payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| STNC payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Student payroll | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Management payroll (and Dept Chairs) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Benefits (3000's) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Supplies (4000's) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Services (5000's) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Equipment (6000's) | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Total Expenditures | \$0.00 | 0.00% | \$0.00 | 0.00% | \$0.00 | 0.00% |

Expenditure Totals

| Expenditure Category | Amount | Change from 2018-19 | District Total | % of District Total |
|-----------------------------|--------------|---------------------|------------------|---------------------|
| Total Expenditures | \$255,669.53 | -60.87% | \$153,674,065.73 | 0.17% |
| Total Faculty Payroll | \$141,348.67 | -27.65% | \$49,910,820.26 | 0.28% |
| Total Classified Payroll | \$25,967.65 | 22.12% | \$22,755,404.45 | 0.11% |
| Total Management Payroll | \$0.00 | 0.00% | \$10,011,188.67 | 0.00% |
| Total Salary/Benefits Costs | \$225,409.68 | -22.15% | \$109,759,005.10 | 0.21% |
| Total Non-Personnel Costs | \$30,259.85 | -91.68% | \$14,465,624.56 | 0.21% |

2.1b Budget Requests

| Rank | Location | SP | M | Amount | Brief Rationale |
|------|------------|----|----|------------|---|
| 0001 | Santa Rosa | 01 | 01 | \$5,000.00 | Having faculty do maintenance and repairs on machines saves the district money, HAVING AN OUTSIDE REPAIR PERSON COME IN IS VERY EXPENSIVE. We have been doing maintenance for years and saving the district a lot of money. |
| 0002 | Santa Rosa | 01 | 01 | \$5,000.00 | to cover increased cost of metal, tool bits, and other materials |

2.2a Current Classified Positions

| Position | Hr/Wk | Mo/Yr | Job Duties |
|----------|-------|-------|------------|
|----------|-------|-------|------------|

2.2b Current Management/Confidential Positions

| Position | Hr/Wk | Mo/Yr | Job Duties |
|------------------|-------|-------|---|
| Department Chair | 12.00 | 12.00 | Evaluates faculty and staff, coordinates classes, reviews curriculum, on call for any problems. Trains new faculty, reviews and implements purchase orders, budget transfers, scheduling, and curriculum. Serves on department advisory committees (Machine, Automotive, Diesel, and effective Fall 2011, Welding) attending 5-two hour advisory meetings per program, per semester or 200 hours per year, 5- one hour individual program meetings per month or 20 hours per year, not including summer session chair duties and mandatory 1 hour cluster meetings (2 per month) and mandatory 2 hour DCC and DCC/IM meetings (1 each per month). |

2.2c Current STNC/Student Worker Positions

| Position | Hr/Wk | Mo/Yr | Job Duties |
|----------|-------|-------|------------|
|----------|-------|-------|------------|

2.2d Adequacy and Effectiveness of Staffing

Two half time classified staff persons should be hired to manage the machine shop and tool inventory. One for evenings, one for morning classes. Students are being injured due to the amount of students being supervised by one instructor. This is a major safety concern.

It is imperative that adequate staff be provided to serve the students in their laboratory work. This same staff should also maintain the laboratory and supply rooms to assure quality instruction and maximum safety at all times that we are in operation.

Additional hours for the Service Center Administrative Assistant as this assistant provides necessary duties to five instructional areas and will be needed as the job duties increase with added responsibility.

The Industrial and Trade Technology department is significantly understaffed compared to other departments. The vast majority of lab classes, especially evening and weekend classes, have no lab assistant support, the faculty are required to set up and run their own labs, while also working the tool room. Safety is an on-going issue, especially when a student injury occurs without a lab assistant available. The instructor has no support and must be taken away from the rest of the class, sometimes for lengthy periods of time, in order to manage the injury.

Santa Rosa Junior College - Program Unit Review Machine Tool Technology - FY 2019-20

2.2 Fiscal Year Employee Data and Calculations

Employee Head Counts

| Employee Category | Count | Change from 2018-19 | District Total | % of District Total |
|-----------------------|-------|---------------------|----------------|---------------------|
| Contract Faculty | 1 | -50.00% | 0 | 0.00% |
| Adjunct Faculty | 7 | 0.00% | 0 | 0.00% |
| Classified Staff | 1 | 0.00% | 0 | 0.00% |
| STNC Workers | 0 | 0.00% | 0 | 0.00% |
| Student Workers | 0 | 0.00% | 0 | 0.00% |
| Mgmt/Admin/Dept Chair | 0 | 0.00% | 0 | 0.00% |

Employee FTE Totals

| FTE Category | FTE | Change from 2018-19 | District Total | % of District Total |
|----------------------------|--------|---------------------|----------------|---------------------|
| FTE-F - Faculty | 1.3001 | -55.16% | 0.0000 | 0.00% |
| FTE-CF - Contract Faculty | 1.0000 | -50.00% | 0.0000 | 0.00% |
| FTE-AF - Adjunct Faculty | 0.3001 | -66.64% | 0.0000 | 0.00% |
| FTE-C - Classified | 1.0000 | 0.00% | 0.0000 | 0.00% |
| FTE-ST - STNC | 0.0000 | 0.00% | 0.0000 | 0.00% |
| FTE-SS - Support Staff | 1.0000 | 0.00% | 0.0000 | 0.00% |
| FTE-SW - Student Workers | 0.0000 | 0.00% | 0.0000 | 0.00% |
| FTE-M - Management | 0.0000 | 0.00% | 0.0000 | 0.00% |
| FTE-DC - Department Chairs | 0.0000 | 0.00% | 0.0000 | 0.00% |

Student Data

| Data Element | Value | Change from 2018-19 | District Total | % of District Total |
|--------------------------|--------|---------------------|----------------|---------------------|
| FTEs-CR - Credit | 7.3371 | -57.58% | 0.0000 | 0.00% |
| FTEs-NC - Non-Credit | 0.0000 | -100.00% | 0.0000 | 0.00% |
| FTEs - combined | 7.3371 | -60.39% | 0.0000 | 0.00% |
| Students Enrolled/Served | 0 | -100.00% | 0 | 0.00% |

Calculations

| Data Element | Value | Change from 2018-19 | District Total | % of District Total |
|---|--------------|---------------------|----------------|---------------------|
| FTE-S : FTE-F | 5.6436 | -11.66% | 0.0000 | 0.00% |
| FTE-AF : FTE-CF | 0.3001 | -33.28% | 0.0000 | 0.00% |
| FTE-F : FTE-SS | 1.3001 | -55.16% | 0.0000 | 0.00% |
| FTE-F : FTE-M | 0.0000 | 0.00% | 0.0000 | 0.00% |
| FTE-SS : FTE-M | 0.0000 | 0.00% | 0.0000 | 0.00% |
| FTE-ST : FTE-C | 0.0000 | 0.00% | 0.0000 | 0.00% |
| Average Faculty Salary per FTE-F | \$108,723.56 | 61.36% | \$0.00 | 0.00% |
| Average Classified Salary per FTE-C | \$25,967.65 | 22.12% | \$0.00 | 0.00% |
| Average Management Salary per FTE-M | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Salary/Benefit costs as a % of total budget | 88.16% | 98.94% | 71.42% | 123.44% |
| Non-Personnel \$ as a % of total budget | 11.84% | -78.74% | 9.41% | 125.73% |
| Restricted Funds as a % of total budget | 20.91% | -63.27% | 19.16% | 109.10% |
| Total Unit Cost per FTE-F | \$196,657.67 | -12.73% | \$0.00 | 0.00% |
| Total Unit Cost per FTE-C | \$255,669.53 | -60.87% | \$0.00 | 0.00% |
| Total Unit Cost per FTE-M | \$0.00 | 0.00% | \$0.00 | 0.00% |
| Total Unit Cost per FTE-S | \$34,845.93 | -1.21% | \$0.00 | 0.00% |
| Total Unit Cost per student served/enrolled | \$0.00 | -100.00% | \$0.00 | 0.00% |

2.2a Classified Positions Employees paid from a Classified OBJECT code

| Name Last | First | Position | Hours | FTE |
|---------------|-----------|--|-------------|---------------|
| Davis | Frederick | Science Laboratory Instructional Assistant | 0.00 | 1.0000 |
| Totals | | | 0.00 | 1.0000 |

2.2b Management/Confidential Positions Employees paid from a Management/Confidential OBJECT code

| Name Last | First | Position | Hours | FTE |
|--------------------|-------|----------|-------|-----|
| << No Employees >> | | | | |

2.2c STNC Workers Employees paid from an STNC OBJECT code

| Name Last | First | Position | Hours | FTE |
|--------------------|--------------|-----------------|--------------|------------|
| << No Employees >> | | | | |

2.2d Student Employees Employees paid from a Student Employee OBJECT code

| Name Last | First | Position | Hours | FTE |
|--------------------|--------------|-----------------|--------------|------------|
| << No Employees >> | | | | |

2.2e Classified, STNC, Management Staffing Requests

| Rank | Location | SP | M | Current Title | Proposed Title | Type |
|------|----------|----|----|---------------|--|------------|
| 0001 | ALL | 01 | 01 | None | Science Lab Instructional Asst Machine Tool 50% | Classified |

2.3a Current Contract Faculty Positions

| Position | Description |
|-------------------|-------------------|
| William McCracken | Full Time Faculty |

2.3b Full-Time and Part-Time Ratios

| Discipline | FTEF Reg | % Reg Load | FTEF Adj | % Adj Load | Description |
|-------------------|---------------------|-----------------------|---------------------|-----------------------|--------------------|
| machine tool | 1.0000 | 0.9900 | 1.3400 | 73.0000 | |

2.3c Faculty Within Retirement Range

2.3d Analysis of Faculty Staffing Needs and Rationale to Support Requests

The program has been directed to find additional adjunct instructors. Contact has been made with industry to "call on" their membership for assistance. In order to maintain the integrity of the program, and to meet the future needs of the recently revived Manufacturing Industry, the dep. request an additional full time Machine Tool Instructor. We need to also populate our adjunct pool in the next year.

Santa Rosa Junior College - Program Unit Review Machine Tool Technology - FY 2018-19

2.3a Contract Faculty Positions Employees paid from a Contract Faculty OBJECT code

| Name Last | First | Position | Hours | HR FTE | DM FTE |
|---------------|---------|----------|-------------|---------------|---------------|
| McCracken | William | Faculty | 0.00 | 1.0000 | 0.0000 |
| Totals | | | 0.00 | 1.0000 | 0.0000 |

Santa Rosa Junior College - Program Unit Review

Machine Tool Technology - FY 2019-20

2.3a Contract Faculty Positions Employees paid from a Contract Faculty OBJECT code

| Name Last | First | Position | Hours | HR FTE | DM FTE |
|------------------|--------------|-----------------|--------------|---------------|---------------|
| McCracken | William | Faculty | 0.00 | 1.0000 | 0.0000 |
| Totals | | | 0.00 | 1.0000 | 0.0000 |

2.3b Adjunct Faculty Positions Employees paid from an Adjunct Faculty OBJECT code

| Name Last | First | Position | Hours | FTE |
|------------------|--------------|-----------------|---------------|---------------|
| Kosten | Jesse | | 6.00 | 0.0000 |
| McCracken | William | | 83.00 | 0.0000 |
| Nelson | Richard | | 132.00 | 0.1043 |
| Parker | Jimmy | | 132.00 | 0.1043 |
| Riley | Eileen | | 70.00 | 0.0000 |
| Ristad | Edwin | | 96.00 | 0.0914 |
| Williams | Eric | | 70.00 | 0.0000 |
| Totals | | | 589.00 | 0.3001 |

2.3e Faculty Staffing Requests

| Rank | Location | SP | M | Discipline | SLO Assessment Rationale |
|------|----------|----|----|-------------------------|--------------------------|
| 0001 | ALL | 02 | 01 | Machine Tool Technology | |

2.4b Rationale for Instructional and Non-Instructional Equipment, Technology, and Software

1- CNC Lathe. We have one CNC lathe in the lab to accommodate 20+ students. Students have to wait for long periods of time and their machine time is shortened drastically to accommodate the rest of the class.

3D Printer for students to operate in a new Machine Tool Technology Capstone course. Additive Manufacturing is essential for students to learn 21st century manufacturing skill sets.

2.4c Instructional Equipment Requests

| Rank | Location | SP | M | Item Description | Qty | Cost Each | Total Cost | Requestor | Room/Space | Contact |
|------|------------|----|----|------------------|-----|--------------|--------------|-------------------|------------|-------------------|
| 0001 | Santa Rosa | 01 | 01 | CNC Mill 5-axis | 1 | \$150,000.00 | \$150,000.00 | William McCracken | 2330 | William McCracken |
| 0002 | Santa Rosa | 01 | 01 | CNC Lathe | 1 | \$100,000.00 | \$100,000.00 | William McCracken | 2330 | William McCracken |
| 0003 | Santa Rosa | 01 | 01 | Metrology Gaging | 0 | \$75,000.00 | \$75,000.00 | William McCracken | 2330 | William McCracken |

2.4d Non-Instructional Equipment and Technology Requests

| Rank | Location | SP | M | Item Description | Qty | Cost Each | Total Cost | Requestor | Room/Space | Contact |
|------|----------|----|---|------------------|-----|-----------|------------|-----------|------------|---------|
|------|----------|----|---|------------------|-----|-----------|------------|-----------|------------|---------|

2.4f Instructional/Non-Instructional Software Requests

| Rank | Location | SP | M | Item Description | Qty | Cost Each | Total Cost | Requestor | Room/Space | Contact |
|------|----------|----|---|------------------|-----|-----------|------------|-----------|------------|---------|
|------|----------|----|---|------------------|-----|-----------|------------|-----------|------------|---------|

2.5a Minor Facilities Requests

| Rank | Location | SP | M | Time Frame | Building | Room Number | Est. Cost | Description |
|------|----------|----|----|------------|----------|-------------|--------------|--|
| 0001 | ALL | 04 | 01 | Urgent | Lounibos | 2330 | \$100,000.00 | HVAC system. The Machine Shop gets extremely hot, particularly during the summer months due to the heat generated by the equipment and the bodies in the small rooms. Temperatures in the room reach levels that cause concern for student safety. |
| 0002 | ALL | 04 | 06 | Urgent | Lounibos | 2330 | \$100,000.00 | Add a new smart classroom. Move the machining computer classroom north into the current break room. The break room is rarely used. This would free up much needed space in the machining lab. Measure H bond money can be used for this project. |

2.5b Analysis of Existing Facilities

The machine shop runs hot with sun always on one wall or the other, machinery constantly running, lighting and other various heat sources. We need air conditioning in this area to make for a safer and more productive learning environment. This is a top priority. As the machining lab is utilized more in the summer months with the addition of summer classes and summer camps, air conditioning is critical. Through the months of April - October, recorded temperatures have reach 95 degrees in the machining lab.

Existing facilities are not adequate in space, storage or technology. We need a smart classroom created in the under utilized break room so that lecture and lab classes can occur at the same time. This would greatly improve the efficiency of the program and improve safety of the shop in general.

Our existing building is too small, electrical is not adequate for modern equipment.

If we are able to enclose the CNC room it would help maximize the use of the shop as we could run manual and CNC classes at the same time.

3.1 Develop Financial Resources

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3.2 Serve our Diverse Communities

We hire through the SRJC Human Resources department along the standard recruitment methods.

We try to recruit both students and instructors from local industry who service a wide demographic area.

The Machine Tool program is currently mentoring students in conjunction with CTE, including non-traditional students/instructors for the program.

3.3 Cultivate a Healthy Organization

Our program reschedules classified time during normal work hours to attend training that allows the employees to better do their job, such as PRPP, CIS, forklift and any other training applicable to their jobs.

3.4 Safety and Emergency Preparedness

Cliff Norton and Dave Yoast are the current emergency preparedness personnel.

3.5 Establish a Culture of Sustainability

We recycle all our scrap metals, oils, shavings and parts.

4.1a Course Student Learning Outcomes Assessment

Machine Tool Technology has a SLO assessment schedule that sets at least one SLO in every course to be assessed every six years.

Please refer to the table below for our schedule and completions:

Machine Tool Technology; Course SLO Assessment Six Year Cycle

| Course | S2011 | F2011 | S2012 | F2012 |
|---|-----------|-----------|-----------|-------|
| Mach 51A - Beg. Machine Tool Technology | X (SLO 1) | | | |
| Mach 51B - Adv. Machine Tool Technology | | | X (SLO 1) | |
| Mach 80A - Intro. To Computer Numeric Control Lathe | | | X (SLO 2) | |
| Mach 80B - Intro. To Computer Numeric Control Mill | | X (SLO 1) | | |
| Machine 61.1 Ferrous Metallurgy | | | | |
| Machine 61.2 Non-Ferrous Metallurgy | | | | |
| MACH 161 - Metallurgy | | | | |
| | | | | |
| | | | | |
| Required Courses | | | | |

| | | | | | |
|------------------------|--|--|--|--|--|
| | | | | | |
| *Not Currently Offered | | | | | |

| |
|-------------|
| X=SCHEDULED |
| X=COMPLETED |

4.1b Program Student Learning Outcomes Assessment

We have completed program level course SLO assessments (with the exception of Metallurgy, which hasn't run until the Fall 2014 semester).

All faculty will be assessing the SLOs of one course of the certificate a semester. We teach 10 courses and have 4 certificates and 1 major, so we can do the rotation within 6 years starting Spring of 2012.

As the department assesses the courses in the certificate, the certificate itself is also being assessed. Once all **required** courses have been assessed, the Machine Tool program will have a dialogue about how well the students are learning and achieving the certificate and major outcomes. Faculty will identify areas for improvement, if any, and form a plan for addressing those.

As of September, 2014, the following certificates have been assessed:

1. Basic CNC Lathe
2. Basic Manual Machine Tool Technology

4.1c Student Learning Outcomes Reporting

| Type | Name | Student Assessment Implemented | Assessment Results Analyzed | Change Implemented |
|-------------------|---------------------------------|--------------------------------|-----------------------------|--------------------|
| Course | Mach51a-Beg Machine Tool Tech | Spring 2011 | Fall 2011 | N/A |
| Course | Mach51b-Adv Machine Tool Tech | Spring 2012 | Fall 2012 | N/A |
| Course | Mach61.11 Ferrous Metallurgy | N/A | N/A | N/A |
| Course | Mach61.12 NonFerrous Metallurgy | N/A | N/A | N/A |
| Course | Mach80a-IntroCNC Lathe | Spring 2012 | Fall 2012 | N/A |
| Course | Mach80b-IntroCNC Mill | Fall 2011 | Spring 2012 | N/A |
| Certificate/Major | Basic CNC Lathe | Fall 2012 | Fall 2012 | N/A |
| Certificate/Major | Basic CNC Mill | N/A | N/A | N/A |
| Certificate/Major | Basic Manual Machine Tool Tech | Fall 2012 | Fall 2012 | N/A |
| Certificate/Major | Machine Tool Technology | N/A | N/A | N/A |
| Certificate/Major | Machine Tool Technology | N/A | N/A | N/A |

4.2a Key Courses or Services that address Institutional Outcomes

| Course/Service | 1a | 1b | 1c | 2a | 2b | 2c | 2d | 3a | 3b | 4a | 4b | 5 | 6a | 6b | 6c | 7 |
|----------------|----|----|----|----|----|----|----|----|----|----|----|---|----|----|----|---|
| Mach 51a | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Mach 51b | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Mach 61.1 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Mach 61.2 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Mach 80a | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Mach 80b | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

4.2b Narrative (Optional)

All of our courses have components of the institutional student learning outcomes. In reviewing the data it appears that we are strong in most of the goals and including the institutional student learning outcome regarding personal health which consists of the safety training provided to students at the beginning of every course to safeguard and provide student safety awareness. We will see if there are more ways to work this into our program in the future.

5.0 Performance Measures

Not applicable

5.1 Effective Class Schedule: Course Offerings, Times, Locations, and Delivery Modes (annual)

The machine tool program offers both day and evening classes to best meet student's needs.

We only offer classes at the Santa Rosa campus, there are no adequate facilities on other campuses.

Machining is hands-on and not able to be taught in other formats.

There is a demand for up-to-date CNC training. New equipment has been purchased and we will continue to replace old and obsolete equipment.

We can better meet the student needs by adding more workstations to eliminate students having to double/triple up on machines.

We are committed to build a relationship and work on articulation with Petaluma High and Santa Rosa High to attract those students.

Santa Rosa Junior College - Program Unit Review Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.1 Student Headcounts The number of students enrolled in each Discipline at first census (duplicated headcount).

Santa Rosa Campus

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Industrial Education | 0 | 38 | 42 | 0 | 43 | 38 | 0 | 37 | |

| | | | | | | | | | |
|-------------------------|----------|------------|------------|----------|------------|------------|-----------|------------|----------|
| Machine Tool Technology | 0 | 152 | 159 | 0 | 175 | 151 | 12 | 83 | |
| ALL Disciplines | 0 | 190 | 201 | 0 | 218 | 189 | 12 | 120 | 1 |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| Industrial Education | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Machine Tool Technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ALL Disciplines | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Other Locations (Includes the PSTC, Windsor, and other locations)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| Industrial Education | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Machine Tool Technology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ALL Disciplines | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

ALL Locations (Combined totals from ALL locations in the District)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|----------|------------|------------|----------|------------|------------|-----------|------------|----------|
| Industrial Education | 0 | 38 | 42 | 0 | 43 | 38 | 0 | 37 | |
| Machine Tool Technology | 0 | 152 | 159 | 0 | 175 | 151 | 12 | 83 | |
| ALL Disciplines | 0 | 190 | 201 | 0 | 218 | 189 | 12 | 120 | 1 |

5.2a Enrollment Efficiency

Enrollment efficiency meets and exceeds college goals.

Enrollment in the advanced CNC class is lower due to attrition.

Santa Rosa Junior College - Program Unit Review Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.2a Enrollment Efficiency The percentage of seats filled in each Discipline at first census based on class limit (not room size).

Santa Rosa Campus

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|
| Industrial Education | 0.0% | 63.3% | 70.0% | 0.0% | 71.7% | 84.4% | 0.0% | 61.7% | 77.3% |
| Machine Tool Technology | 0.0% | 115.0% | 113.0% | 0.0% | 117.9% | 98.3% | 60.0% | 80.0% | 87.3% |
| ALL Disciplines | 0.0% | 95.6% | 96.9% | 0.0% | 101.2% | 94.5% | 60.0% | 70.8% | 82.4% |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Machine Tool Technology | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| ALL Disciplines | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

Other Locations (Includes the PSTC, Windsor, and other locations)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Machine Tool Technology | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| ALL Disciplines | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

ALL Locations (Combined totals from ALL locations in the District)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|--------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|
| Industrial Education | 0.0% | 63.3% | 70.0% | 0.0% | 71.7% | 84.4% | 0.0% | 61.7% | 77.3% |
| Machine Tool Technology | 0.0% | 115.0% | 113.0% | 0.0% | 117.9% | 98.3% | 60.0% | 80.0% | 87.3% |
| ALL Disciplines | 0.0% | 95.6% | 96.9% | 0.0% | 101.2% | 94.5% | 60.0% | 70.8% | 82.4% |

5.2b Average Class Size

Santa Rosa Junior College - Program Unit Review

Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.2b Average Class Size The average class size in each Discipline at first census (excludes cancelled classes).

Santa Rosa Campus

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.0 | 12.7 | 14.0 | 0.0 | 14.3 | 12.7 | 0.0 | 12.3 | 11.0 |
| Machine Tool Technology | 0.0 | 23.0 | 22.6 | 0.0 | 20.8 | 19.7 | 12.0 | 16.0 | 11.0 |
| ALL Disciplines | 0.0 | 19.1 | 19.4 | 0.0 | 18.7 | 17.3 | 12.0 | 14.2 | 11.0 |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Industrial Education | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Machine Tool Technology | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALL Disciplines | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Other Locations (Includes the PSTC, Windsor, and other locations)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Industrial Education | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Machine Tool Technology | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ALL Disciplines | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

ALL Locations (Combined totals from ALL locations in the District)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.0 | 12.7 | 14.0 | 0.0 | 14.3 | 12.7 | 0.0 | 12.3 | 11.0 |
| Machine Tool Technology | 0.0 | 23.0 | 22.6 | 0.0 | 20.8 | 19.7 | 12.0 | 16.0 | 11.0 |
| ALL Disciplines | 0.0 | 19.1 | 19.4 | 0.0 | 18.7 | 17.3 | 12.0 | 14.2 | 11.0 |

5.3 Instructional Productivity

Santa Rosa Junior College - Program Unit Review

Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.3 Instructional Productivity The ratio of Full-Time Equivalent Students (FTES) to Full-Time Equivalent Faculty (FTEF) in each Discipline at first census.

Santa Rosa Campus

| Industrial Education | | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|----------------------|--------------|-------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|------------|
| | FTES | 0.00 | 1.69 | 1.87 | 0.00 | 1.83 | 1.74 | 0.00 | 1.46 | 1.5 |
| | FTEF | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 | 0.1 |
| | Ratio | 0.00 | 9.25 | 10.25 | 0.00 | 10.00 | 9.50 | 0.00 | 8.00 | 8.2 |

| Machine Tool Technology | | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|--------------|-------------|--------------|--------------|-------------|--------------|--------------|-------------|--------------|-------------|
| | FTES | 0.00 | 16.10 | 18.27 | 0.00 | 20.03 | 19.30 | 1.46 | 6.40 | 4.6 |
| | FTEF | 0.00 | 1.07 | 1.24 | 0.00 | 1.58 | 1.57 | 0.21 | 0.63 | 0.4 |
| | Ratio | 0.00 | 15.09 | 14.68 | 0.00 | 12.65 | 12.33 | 7.08 | 10.22 | 11.1 |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Industrial Education | | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|----------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| | FTES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | FTEF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |

| Machine Tool Technology | | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| | FTES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | FTEF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |

Other Locations (Includes the PSTC, Windsor, and other locations)

| Industrial Education | | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|----------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| | FTES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | FTEF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |

| Machine Tool Technology | | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| | FTES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | FTEF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| | Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |

ALL Locations (Combined totals from ALL locations in the District)

| Industrial Education | | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|----------------------|--------------|-------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|------------|
| | FTES | 0.00 | 1.69 | 1.87 | 0.00 | 1.83 | 1.74 | 0.00 | 1.46 | 1.5 |
| | FTEF | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 | 0.18 | 0.00 | 0.18 | 0.1 |
| | Ratio | 0.00 | 9.25 | 10.25 | 0.00 | 10.00 | 9.50 | 0.00 | 8.00 | 8.2 |

| Machine Tool Technology | | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|--------------|-------------|--------------|--------------|-------------|--------------|--------------|-------------|--------------|-------------|
| | FTES | 0.00 | 16.10 | 18.27 | 0.00 | 20.03 | 19.30 | 1.46 | 6.40 | 4.6 |
| | FTEF | 0.00 | 1.07 | 1.24 | 0.00 | 1.58 | 1.57 | 0.21 | 0.63 | 0.4 |
| | Ratio | 0.00 | 15.09 | 14.68 | 0.00 | 12.65 | 12.33 | 7.08 | 10.22 | 11.1 |

5.4 Curriculum Currency

Curriculum is current; we are currently working on adding SLOs. We will be working on updating courses that are coming up for full review in the fall.

| DisciplineNbr | VersionNbr | TermCourseLastTaught | DateLastReview | CourseStatus | ApprovalStatus | Cred |
|---------------|------------|----------------------|----------------|----------------|----------------|------|
| MACH 51A | 5 | Fall 2014 | 12/6/2010 | Changed Course | Approved | yes |
| MACH 51B | 5 | Spring 2014 | 5/16/2011 | Changed Course | Approved | no |
| MACH 61.1 | 5 | Fall 2014 | 9/27/2010 | Changed Course | Approved | no |
| MACH 61.2 | 5 | Spring 2013 | 9/27/2010 | Changed Course | Approved | no |
| MACH 770 | 4 | Fall 2014 | 2/23/2015 | Changed Course | Approved | no |
| MACH 80A | 5 | Fall 2014 | 2/1/2010 | Changed Course | Approved | no |
| MACH 80B | 5 | Fall 2014 | 2/22/2010 | Changed Course | Approved | no |
| MACH 98 | 4 | Spring 2014 | 11/14/2011 | Changed Course | Approved | no |
| MACH 99I | 5 | | 5/11/2009 | Changed Course | Approved | no |
| | | | | | | |

5.5 Successful Program Completion

We are committed to rebuild our relationship with our industry partners to encourage students, even those students that become employed continue with our program(s) to obtain their certificate or AS degree. We have identified targeting groups for outreach. We have identified equipment to replace.

Enrollment and completers have fallen due to the current state of the program. Efforts have been made and implemented to increase the number of completers and to improve our program.

We have identified capstone courses for most of our certificates and are working with the district to get these implemented as automatic triggers for awarding of certificates.

| Cert Code | TOP | Description | Prog Awd | 2002 2003 | 2003 2004 | 2004 2005 | 2005 2006 | 2006 2007 | 2007 2008 |
|-----------|--------|--|----------|--------------|--------------|--------------|--------------|--------------|--------------|
| 2015 | 095630 | Machine Tool Technology | S | 0 | 0 | 0 | 0 | 5 | 2 |
| 3034 | 095630 | Machine Tool Technology | L | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | T | 3 | 5 | 2 | 2 | 8 | 0 |
| 3293 | 095630 | Machine Tool Technology: Basic CNC Lathe | E | 0 | 0 | 0 | 2 | 3 | 3 |
| 3294 | 095630 | Machine Tool Technology: Basic CNC Mill | E | 0 | 0 | 0 | 1 | 4 | 2 |
| 5044 | 095630 | Machine Tool Technology: Basic Manual Machin | O | 0 | 0 | 0 | 20 | 20 | 13 |

5.6 Student Success

Machine Tool student retention is good, averaging in the mid 80's as compared to mid 70's for the district as a whole.

Our GPA is better than the district as a whole.

Santa Rosa Junior College - Program Unit Review

Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.6a Retention The percentage of students receiving a grade of A,B,C,D,CR, or I in each Discipline (duplicated headcount).

Santa Rosa Campus

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Industrial Education | 0.0% | 94.7% | 88.1% | 0.0% | 74.4% | 91.9% | 0.0% | 81.1% | 88.1% |
| Machine Tool Technology | 0.0% | 72.6% | 70.8% | 0.0% | 72.8% | 80.5% | 83.3% | 68.1% | 77.1% |
| ALL Disciplines | 0.0% | 78.1% | 75.5% | 0.0% | 73.2% | 83.2% | 83.3% | 73.8% | 82.6% |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Machine Tool Technology | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| ALL Disciplines | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

Other Locations (Includes the PSTC, Windsor, and other locations)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Machine Tool Technology | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| ALL Disciplines | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

ALL Locations (Combined totals from ALL locations in the District)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Industrial Education | 0.0% | 94.7% | 88.1% | 0.0% | 74.4% | 91.9% | 0.0% | 81.1% | 88.1% |
| Machine Tool Technology | 0.0% | 72.6% | 70.8% | 0.0% | 72.8% | 80.5% | 83.3% | 68.1% | 77.1% |
| ALL Disciplines | 0.0% | 78.1% | 75.5% | 0.0% | 73.2% | 83.2% | 83.3% | 73.8% | 82.6% |

Santa Rosa Junior College - Program Unit Review

Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.6b Successful Course Completion The percentage of students receiving a grade of A,B,C, or CR in each Discipline (duplicated headcount).

Santa Rosa Campus

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Industrial Education | 0.0% | 84.2% | 83.3% | 0.0% | 65.1% | 83.8% | 0.0% | 78.4% | 85.3% |
| Machine Tool Technology | 0.0% | 67.5% | 63.7% | 0.0% | 68.8% | 75.4% | 83.3% | 68.1% | 74.3% |
| ALL Disciplines | 0.0% | 71.6% | 69.0% | 0.0% | 67.9% | 77.4% | 83.3% | 72.6% | 79.7% |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Machine Tool Technology | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| ALL Disciplines | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

Other Locations (Includes the PSTC, Windsor, and other locations)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Machine Tool Technology | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| ALL Disciplines | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

ALL Locations (Combined totals from ALL locations in the District)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Industrial Education | 0.0% | 84.2% | 83.3% | 0.0% | 65.1% | 83.8% | 0.0% | 78.4% | 85.3% |
| Machine Tool Technology | 0.0% | 67.5% | 63.7% | 0.0% | 68.8% | 75.4% | 83.3% | 68.1% | 74.3% |
| ALL Disciplines | 0.0% | 71.6% | 69.0% | 0.0% | 67.9% | 77.4% | 83.3% | 72.6% | 79.7% |

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Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.6c Grade Point Average The average GPA in each Discipline (UnitsTotal / GradePoints).

Santa Rosa Campus

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.00 | 2.69 | 2.63 | 0.00 | 1.95 | 2.66 | 0.00 | 2.59 | 3.00 |
| Machine Tool Technology | 0.00 | 2.68 | 2.72 | 0.00 | 2.72 | 3.09 | 3.60 | 3.21 | 3.00 |
| ALL Disciplines | 0.00 | 2.68 | 2.70 | 0.00 | 2.57 | 3.02 | 3.60 | 2.95 | 3.00 |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Machine Tool Technology | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ALL Disciplines | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Other Locations (Includes the PSTC, Windsor, and other locations)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Machine Tool Technology | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ALL Disciplines | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

ALL Locations (Combined totals from ALL locations in the District)

| Discipline | X2015 | F2015 | S2016 | X2016 | F2016 | S2017 | X2017 | F2017 | S2018 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Industrial Education | 0.00 | 2.69 | 2.63 | 0.00 | 1.95 | 2.66 | 0.00 | 2.59 | 3.00 |
| Machine Tool Technology | 0.00 | 2.68 | 2.72 | 0.00 | 2.72 | 3.09 | 3.60 | 3.21 | 3.00 |
| ALL Disciplines | 0.00 | 2.68 | 2.70 | 0.00 | 2.57 | 3.02 | 3.60 | 2.95 | 3.00 |

5.7 Student Access

Our program is predominately white, male. However our hispanic population is on the rise.

Santa Rosa Junior College - Program Unit Review Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.7a Students Served - by Ethnicity The number of students in each Discipline at first census broken down by ethnicity (duplicated headcount).

ALL Locations (Combined totals from ALL locations in the District)

| Industrial Education | Ethnicity | 2015-16 | Percent | 2016-17 | Percent | 2017-18 | Percent | 2018-19 | Percent |
|----------------------|------------------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|
| | White | 35 | 46.1% | 36 | 46.2% | 32 | 50.8% | 28 | 44.3% |
| | Asian | 1 | 1.3% | 1 | 1.3% | 3 | 4.8% | 2 | 3.1% |
| | Black | 1 | 1.3% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | Hispanic | 32 | 42.1% | 32 | 41.0% | 20 | 31.7% | 18 | 28.1% |
| | Native American | 1 | 1.3% | 2 | 2.6% | 1 | 1.6% | 1 | 1.6% |
| | Pacific Islander | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | Filipino | 1 | 1.3% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | Other Non-White | 4 | 5.3% | 3 | 3.8% | 4 | 6.3% | 3 | 4.7% |
| | Decline to state | 1 | 1.3% | 4 | 5.1% | 3 | 4.8% | 2 | 3.1% |
| | ALL Ethnicities | 76 | 100.0% | 78 | 100.0% | 63 | 100.0% | 54 | 100.0% |

| Machine Tool Technology | Ethnicity | 2015-16 | Percent | 2016-17 | Percent | 2017-18 | Percent | 2018-19 | Percent |
|-------------------------|------------------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|
| | White | 167 | 62.5% | 165 | 57.9% | 78 | 52.7% | 68 | 45.3% |
| | Asian | 7 | 2.6% | 5 | 1.8% | 5 | 3.4% | 4 | 2.6% |
| | Black | 7 | 2.6% | 6 | 2.1% | 0 | 0.0% | 0 | 0.0% |
| | Hispanic | 63 | 23.6% | 63 | 22.1% | 41 | 27.7% | 35 | 22.7% |
| | Native American | 2 | 0.7% | 4 | 1.4% | 2 | 1.4% | 1 | 0.6% |
| | Pacific Islander | 1 | 0.4% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | Filipino | 4 | 1.5% | 2 | 0.7% | 5 | 3.4% | 3 | 1.9% |
| | Other Non-White | 12 | 4.5% | 26 | 9.1% | 9 | 6.1% | 7 | 4.5% |
| | Decline to state | 4 | 1.5% | 14 | 4.9% | 8 | 5.4% | 6 | 3.9% |
| | ALL Ethnicities | 267 | 100.0% | 285 | 100.0% | 148 | 100.0% | 149 | 100.0% |

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Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.7b Students Served - by Gender The number of students in each Discipline at first census broken down by gender (duplicated headcount).

ALL Locations (Combined totals from ALL locations in the District)

| Industrial Education | Gender | 2015-16 | Percent | 2016-17 | Percent | 2017-18 | Percent | 2018-19 |
|-----------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Male | 69 | 90.8% | 70 | 89.7% | 60 | 95.2% | 2 |
| | Female | 5 | 6.6% | 6 | 7.7% | 3 | 4.8% | 0 |
| | Unknown | 2 | 2.6% | 2 | 2.6% | 0 | 0.0% | 0 |
| | ALL Genders | 76 | 100.0% | 78 | 100.0% | 63 | 100.0% | 2 |

| Machine Tool Technology | Gender | 2015-16 | Percent | 2016-17 | Percent | 2017-18 | Percent | 2018-19 |
|--------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Male | 235 | 88.0% | 255 | 89.5% | 137 | 92.6% | 2 |
| | Female | 27 | 10.1% | 18 | 6.3% | 7 | 4.7% | 0 |
| | Unknown | 5 | 1.9% | 12 | 4.2% | 4 | 2.7% | 0 |
| | ALL Genders | 267 | 100.0% | 285 | 100.0% | 148 | 100.0% | 2 |

Santa Rosa Junior College - Program Unit Review

Machine Tool Technology - FY 2017-18 (plus current FY Summer and Fall)

5.7c Students Served - by Age The number of students in each Discipline at first census broken down by age (duplicated headcount).

ALL Locations (Combined totals from ALL locations in the District)

| Industrial Education | Age Range | 2015-16 | Percent | 2016-17 | Percent | 2017-18 | Percent | 2018-19 | Percent |
|----------------------|-----------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|--------------|
| | 0 thru 18 | 11 | 14.5% | 18 | 23.1% | 11 | 17.5% | 2 | 3.2% |
| | 19 and 20 | 23 | 30.3% | 16 | 20.5% | 23 | 36.5% | 1 | 1.6% |
| | 21 thru 25 | 23 | 30.3% | 20 | 25.6% | 17 | 27.0% | 1 | 1.6% |
| | 26 thru 30 | 8 | 10.5% | 9 | 11.5% | 6 | 9.5% | 1 | 1.6% |
| | 31 thru 35 | 6 | 7.9% | 6 | 7.7% | 2 | 3.2% | 1 | 1.6% |
| | 36 thru 40 | 1 | 1.3% | 2 | 2.6% | 4 | 6.3% | 1 | 1.6% |
| | 41 thru 45 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 1.6% |
| | 46 thru 50 | 2 | 2.6% | 3 | 3.8% | 0 | 0.0% | 1 | 1.6% |
| | 51 thru 60 | 1 | 1.3% | 3 | 3.8% | 0 | 0.0% | 1 | 1.6% |
| | 61 plus | 1 | 1.3% | 1 | 1.3% | 0 | 0.0% | 1 | 1.6% |
| | ALL Ages | 76 | 100.0% | 78 | 100.0% | 63 | 100.0% | 20 | 31.7% |

| Machine Tool Technology | Age Range | 2015-16 | Percent | 2016-17 | Percent | 2017-18 | Percent | 2018-19 | Percent |
|-------------------------|-----------------|------------|---------------|------------|---------------|------------|---------------|-----------|-------------|
| | 0 thru 18 | 34 | 12.7% | 29 | 10.2% | 25 | 16.9% | 1 | 0.7% |
| | 19 and 20 | 57 | 21.3% | 46 | 16.1% | 22 | 14.9% | 1 | 0.7% |
| | 21 thru 25 | 52 | 19.5% | 59 | 20.7% | 39 | 26.4% | 1 | 0.7% |
| | 26 thru 30 | 43 | 16.1% | 56 | 19.6% | 16 | 10.8% | 1 | 0.7% |
| | 31 thru 35 | 37 | 13.9% | 47 | 16.5% | 19 | 12.8% | 1 | 0.7% |
| | 36 thru 40 | 6 | 2.2% | 14 | 4.9% | 11 | 7.4% | 1 | 0.7% |
| | 41 thru 45 | 5 | 1.9% | 7 | 2.5% | 7 | 4.7% | 1 | 0.7% |
| | 46 thru 50 | 15 | 5.6% | 13 | 4.6% | 3 | 2.0% | 1 | 0.7% |
| | 51 thru 60 | 9 | 3.4% | 10 | 3.5% | 6 | 4.1% | 1 | 0.7% |
| | 61 plus | 9 | 3.4% | 4 | 1.4% | 0 | 0.0% | 1 | 0.7% |
| | ALL Ages | 267 | 100.0% | 285 | 100.0% | 148 | 100.0% | 14 | 9.4% |

5.8 Curriculum Offered Within Reasonable Time Frame

You can get a certificate within 2 years if a full time student.

Mach51a- every semester

Mach51b - every other semester (spring only)

Mach53 - every other semester (spring only)

Mach161 - every other semester (spring only)

Mach80a - every other semester (fall only)

Mach80b - every other semester (spring only)

5.9a Curriculum Responsiveness

Our advisory committee participation has fallen off in recent years. We are committed to rebuild and reach out to the industry and education partners to work with them to build up the program, equipment and instruction.

The advisory meetings are held once a semester, and at these meetings we provide the industry members with curriculum and ask for feed back. We revise curriculum as suggested by this feedback. We will be working more closely with these new members this next year to improve our porgam and move toward a manufacturing center.

5.9b Alignment with High Schools (Tech-Prep ONLY)

We are working with the Manager of School Initiatives and Career Pathway Development to articulate with one or two schools in the county. Machine 51A has been articulated with Petaluma High School.

5.10 Alignment with Transfer Institutions (Transfer Majors ONLY)

N/A

5.11a Labor Market Demand (Occupational Programs ONLY)

| SOC Code | Occupational Title | Annual Average Employment | | Employment Change | | Average Annual Job Openings | | | Wages and Training | |
|--------------|------------------------|---------------------------|------------------|-------------------|--------------|-----------------------------|----------------------|----------------|--------------------|---------------|
| | | 2006 | 2016 | Numerical | Percent | New Jobs | Net Replacements [1] | Total [2] | Median Hourly [3] | Median Annual |
| 00-0000 | Total, All Occupations | 1,086,800 | 1,169,700 | 82,900 | 7.6 | 8,290 | 24,273 | 32,563 | \$22.20 | \$46,170 |
| 00-0000 | Total, All Occupations | 1,153,700 | 1,238,000 | 84,300 | 7.3 | 8,430 | 25,250 | 33,680 | \$20.47 | \$42,500 |
| 00-0000 | Total, All Occupations | 75,200 | 85,600 | 10,400 | 13.8 | 1,040 | 1,687 | 2,727 | \$17.45 | \$36,200 |
| 00-0000 | Total, All Occupations | 219,300 | 248,200 | 28,900 | 13.2 | 2,890 | 4,850 | 7,740 | \$17.78 | \$36,900 |
| 00-0000 | Total, All Occupations | 144,300 | 148,900 | 4,600 | 3.2 | 460 | 3,245 | 3,705 | \$17.31 | \$35,900 |
| 00-0000 | Total, All Occupations | 981,700 | 1,075,600 | 93,900 | 9.6 | 9,390 | 21,398 | 30,788 | \$23.45 | \$48,700 |
| 00-0000 | Total, All Occupations | 185,200 | 196,600 | 11,400 | 6.2 | 1,140 | 4,171 | 5,311 | \$14.70 | \$30,500 |
| Total | | 3,846,200 | 4,162,600 | 316,400 | 8.23% | 31,640 | 84,874 | 116,514 | | |

| | | | | | | | | | | |
|---------|---|--|--|--|--|-------|-------|-----|-------|----|
| 17-2112 | Industrial Engineers | | | | | 200 | 240 | 40 | 20.0 | 4 |
| 17-2141 | Mechanical Engineers | | | | | 230 | 220 | -10 | -4.3 | 0 |
| 49-9041 | Industrial Machinery Mechanics | | | | | 120 | 150 | 30 | 25.0 | 3 |
| 49-9042 | Maintenance and Repair Workers, General | | | | | 1,540 | 1,730 | 190 | 12.3 | 19 |
| 49-9043 | Maintenance Workers, Machinery | | | | | 60 | 60 | 0 | 0.0 | 0 |
| 51-2041 | Structural Metal Fabricators and Fitters | | | | | 90 | 100 | 10 | 11.1 | 1 |
| 51-4000 | Metal Workers and Plastic Workers | | | | | 1,110 | 1,130 | 20 | 1.8 | 2 |
| 51-4011 | Computer-Controlled Machine Tool Operators, Metal and Plastic | | | | | 110 | 110 | 0 | 0.0 | 0 |
| 51-4022 | Forging Machine Setters, Operators, and Tenders, Metal and Plastic | | | | | 90 | 100 | 10 | 11.1 | 1 |
| 51-4031 | Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic | | | | | 120 | 110 | -10 | -8.3 | 0 |
| 51-4033 | Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic | | | | | 60 | 50 | -10 | -16.7 | 0 |
| 51-4041 | Machinists | | | | | 220 | 220 | 0 | 0.0 | 0 |

| | | | | | | |
|---------|---|-----|-----|-----|-------|----|
| 51-4072 | Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic | 50 | 50 | 0 | 0.0 | 0 |
| 51-9012 | Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders | 780 | 950 | 170 | 21.8 | 17 |
| 51-9021 | Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders | 70 | 60 | -10 | -14.3 | 0 |
| 51-9023 | Mixing and Blending Machine Setters, Operators, and Tenders | 140 | 160 | 20 | 14.3 | 2 |
| 51-9032 | Cutting and Slicing Machine Setters, Operators, and Tenders | 60 | 60 | 0 | 0.0 | 0 |
| 51-9041 | Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders | 60 | 50 | -10 | -16.7 | 0 |
| 51-9071 | Jewelers and Precious Stone and Metal Workers | 130 | 130 | 0 | 0.0 | 0 |

5.11b Academic Standards

The Machine Tool program discusses academic standards at our department meetings. We have recently been dealing with content standards while reviewing course outlines to establish SLOs. Employers expect that our students meet some type of industry performance standard, and we discuss these standards with our advisory committee. Often we use the ability to pass national, independent, industry accepted skill level tests as a standard. We also use acceptable work skill demonstrations as a standards.

6.1 Progress and Accomplishments Since Last Program/Unit Review

| Rank | Location | SP | M | Goal | Objective | Time Frame | Progress to Date |
|------|----------|----|---|------|-----------|------------|------------------|
|------|----------|----|---|------|-----------|------------|------------------|

6.2b PRPP Editor Feedback - Optional

—

6.3a Annual Unit Plan

| Rank | Location | SP | M | Goal | Objective | Time Frame | Resources Required |
|------|----------|----|---|------|-----------|------------|--------------------|
|------|----------|----|---|------|-----------|------------|--------------------|