

# Santa Rosa Junior College

## Program Resource Planning Process

### Automotive Technology 2015

#### 1.1a Mission

The mission of the Automotive Technology program is to provide entry-level training to students interested in entering the Automotive Repair industry, and provide updated and advanced training for individuals currently working within the Automotive Repair industry. This industry is constantly changing and developing, the cost of fuel constantly rising. This drives the need to develop new fuels and fuel control methods; electric vehicles, bio-fuel, hybrid vehicles. Our program is dynamic, and changes to meet the requirements of our local community and businesses.

We offer a learning environment that is open and affirming to all students, and our instructional programs are flexible to the needs of all students seeking training in their chosen occupational field. The Automotive Technology program fosters a learning environment that allows each student to develop the necessary skills to achieve their educational goals. Our faculty provides instruction that reflects the latest industrial advancements, updates program curriculum regularly, and attends training to remain current in their disciplines.

#### 1.1b Mission Alignment

The Automotive Technology program is in perfect alignment with the District's Mission. We benefit the community we serve by: Increasing Knowledge, Improving Skills and Enhancing Lives. Our students go into society ready to work, earn a living and contribute to the community.

We have also addressed the Student Learning Outcomes and Assessment initiative by completing all course and program SLOs, and are well on the way to completing our SLO assessments.

The Automotive program has also addressed the Community Outreach, Development & Involvement initiative through increased articulation with area high school vocational training programs, and sending department faculty to speak at local high schools.

#### 1.1c Description

The Automotive Program offers day classes, which lead to a Certificate in Automotive Technology. This certificate series of classes provides the student with a general education in automotive theory of operation, repair shop procedures, and automotive repair tools and

techniques. The student can choose to complete the certificate in 3, 4 or 5 semesters. A student who completes the certificate requirements and the necessary general educational requirements can also earn an A. S. Degree in Automotive Technology. The program also offers evening classes that provide continuous training opportunities for day certificate students and students working in the Automotive Repair industry (our evening classes have been drastically cut back due to the current budgetary restraints). The automotive program offers California Bureau of Automotive Repair approved classes that allow students to obtain or retain a Smog Check License.

To better serve the needs of our diverse student body, the Automotive Technology Program has several skill certificates in place. These certificates are aligned with ASE training criteria, which means that they meet current industry standards. The certificates also give students a document of training verification and recognition that may be helpful in a job application process or to obtain a pay increase in an existing job. Many of our students, who do not have time to complete the full Automotive Technology certificate, find these certificates useful. The Auto Program currently offers skill certificates in the following areas:

1. Engine Repair Specialist Skills Certificate
2. Electric and Electronic Systems Specialist Skills Certificate
3. Brakes, Steering and Suspension Specialist Skills Certificate
4. Heating and Air Conditioning Systems Specialist Skills Certificate
5. Transmission Specialist Skills Certificate
6. Tune-Up and Electronics Specialist Skills Certificate
7. Powertrain Systems Performance & Electronics Specialist

## 1.1d Hours of Office Operation and Service by Location

In order to reach as many students as possible, the Automotive, Diesel, Welding and Machine Tool programs offer day and evening classes (although the current budget climate precludes the offering of most evening classes).

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

The Automotive Program shop area is open Monday through Friday from 8:00 a.m. until 5:00 P.M. During these hours there is an auto shop assistant in the shop area who can aid and direct students and answer their questions.

## 1.2 Program/Unit Context and Environmental Scan

The current economy has resulted in high unemployment. This has resulted in more students in the community desiring training in a new trade, or further training in their current trade. Unfortunately, we are unable to meet the community's need due to the same economic problems that created the need in the first place. The Automotive Department's sections are all overfull, and we have inadequate faculty to teach more sections due to lack of funding.

Changes over the next three years will be primarily in hybrid and electric vehicle growth. The industry is poised for very rapid expansion in these two areas. The infrastructure for production and support is almost in place, and in response to this anticipated need the Automotive Department is working hard to expand our Alternative Fuels program by creating both hybrid and electric vehicle training programs that benefit our students as they seek employment. In fact, we have made our Introduction to Hybrid Vehicles a requirement for our full Automotive Technology certificate.

The Automotive Advisory Committee has been discussing the benefits of certifying the Auto program through NATEF (National Automotive Technician Education Foundation). This certification process is both time consuming and labor intensive. Talks will continue in upcoming meetings, but we have already begun work on the self-evaluation paperwork provided by NATEF (in anticipation of our advisory committee's approval of this certification). The Auto Advisory Committee also has discussed affiliating the Automotive Department with an automotive manufacturer (or multiple manufacturers) as a means of gaining outside funding for equipment and supplies. This affiliation research is ongoing.

The Auto Department has existing tacit agreements with several local car dealerships to employ our students as apprentice level technicians. Several of these dealerships have also volunteered to look for vehicle donations from their respective manufacturers, especially for donations of hybrid vehicles that will be necessary for our new hybrid classes. We have also received offers from several employers on the advisory committee to allow students to "job shadow" auto technicians in their shops during the workday.

With the economic downturn that we have experienced over the last five years, donations of vehicles from auto manufacturers has ceased. This was our single largest outside funding and has impacted the quality of our training by forcing us to continue to use outdated and worn out vehicles for student training in the auto shop. We have worked around this somewhat by allowing the students to work on their own vehicles, but this does not give us a predictable array of cars and trucks to predicate our training plan on.

## 2.1a Budget Needs

The Industrial and Trade Technology Department has suffered from 19% budget cuts in the recent years, as well as the loss of all STNC and student help funds. With rising costs on many of our consumables and the difficulty in finding federal work study students it is becoming harder to maintain program standards.

In response to the district initiatives regarding green programs, the Industrial and Trade Technology department developed an Alternative Fuel Program. The past operating budget of the Automotive and Diesel Programs was adequate for Alternative Fuel's start-up purposes but our budgets need to be increased as enrollments climb. Augmentation of the budget by outside sources (Caterpillar Excellence Fund, auto dealer donations, etc.) and other industry dollars have aided in support but are now limited by the economic downturn.

Note: due to the current budget limitations, and with input from the Automotive Advisory Committee, the Automotive Technology Department has temporarily suspended offering the following elective classes:

1. Auto 193 Electric Vehicle
2. Auto 190.1 Alternative Fuels and Systems
3. Auto 190.1L Alternative Fuels and Systems Lab
4. Auto 191 Advanced Alternative Fuels
5. Auto 192 Zero Emission Technology
6. Auto 195 Hybrid Vehicle Safety
7. Auto 109 BAR Update Training
8. Auto 110 Electric/Electronic Systems (A6 alternative)
9. Auto 111 Engine Performance (A8 alternative)
10. Auto 112 Driveability and Emissions Problems (L1 alternative)

Because Auto 109...BAR Update Training is of vital importance to the certified smog check technicians in area (they must have this class to renew their BAR Smog Test license), we have moved it into Community Education and continue to offer it at a higher cost to the students.

The Automotive Program's supply budget has been cut and as a result the program has initiated a materials fee where appropriate for students in many of our sections, and consolidated/organized our on-hand shop supply inventory.

An area of growing concern for the Automotive Technology Department is written in our name..."Technology". Every year working under extreme budget restraints puts us further behind in our ability to train SRJC students at the level requested by local employers. We have many high profile local employers on our advisory committee, and they all have the same response when we ask what they want our students trained in. The committee wants employees who are skilled in "the basics" and "computers, electronics, and technology as they apply to auto repair". It has been many years since our department has updated its technology, and the budget crisis is putting us further and further behind. A bright spot over the last three years has been CTEA funding, which has allowed us to purchase a new state-of-the-art wheel alignment machine, computerized tire balancer and updated tire mounting machine; but the rest of our equipment is growing outdated and does not fulfill the needs of area employers.

Two more budget inadequacies that impact the Automotive Department are lack of student help in our lab, and lack of an adequate equipment repair budget. We are running large sections that utilize potentially hazardous equipment and we could certainly use help maintaining an adequately supervised and safe training environment. To accomplish this we need lab assistants. Also, much of our equipment is getting old and needs frequent repair, for which we need a greater repair budget.

Our budget is currently less than adequate to support these two areas of concern. A suggestion that would help us is to institute a rollover repair budget for our program; i.e. a repair budget that is dedicated to equipment repair only, is non-transferable, and can rollover from fiscal year to fiscal year. It would be used to repair the water treatment system, forklift, and other equipment used by all Lounibos programs. The way it is currently set up the funds are "use or lose". Some years we go through our entire repair budget - plus more - in just a few months. Other years we barely tap into this fund, and have to either use it all or lose it. If we could have a rollover budget of \$2,000 a year that was allowed to accumulate year to year (any unused funds are moved to the next year), we could do repairs as needed, but also "save up" for major repairs.

## Automotive Technology - FY 2013-14

### 2.1 Fiscal Year Expenditures

#### Santa Rosa Campus

Expenditure Category	Unrestricted Funds	Change from 2012-13	Restricted Funds	Change from 2012-13	Total	Change from 2012-13
Faculty payroll	\$290,796.70	87.87%	\$0.00	0.00%	\$290,796.70	87.87%
Adjunct payroll	\$143,355.43	40.69%	\$0.00	0.00%	\$143,355.43	40.69%
Classified payroll	\$50,826.35	5.58%	\$0.00	0.00%	\$50,826.35	5.58%
STNC payroll	\$0.00	-100.00%	\$0.00	0.00%	\$0.00	-100.00%
Student payroll	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Management payroll (and Dept Chairs)	\$33,391.90	0.00%	\$0.00	0.00%	\$33,391.90	0.00%
Benefits (3000's)	\$138,474.31	60.53%	\$0.00	0.00%	\$138,474.31	60.53%
Supplies (4000's)	\$15,230.62	33.81%	\$0.00	0.00%	\$15,230.62	33.81%
Services (5000's)	\$2,612.93	14.43%	\$0.00	-100.00%	\$2,612.93	-52.65%
Equipment (6000's)	\$2,647.29	0.00%	\$9,470.84	-59.44%	\$12,118.13	-48.11%
<b>Total Expenditures</b>	<b>\$677,335.53</b>	<b>67.17%</b>	<b>\$9,470.84</b>	<b>-64.38%</b>	<b>\$686,806.37</b>	<b>59.07%</b>

#### Expenditure Totals

Expenditure Category	Amount	Change from 2012-13	District Total	% of District Total
Total Expenditures	\$686,806.37	59.07%	\$120,253,860.49	0.57%
Total Faculty Payroll	\$434,152.13	69.14%	\$43,245,546.66	1.00%
Total Classified Payroll	\$50,826.35	5.58%	\$19,181,736.44	0.26%
Total Management Payroll	\$33,391.90	0.00%	\$8,511,170.13	0.39%
Total Salary/Benefits Costs	\$656,844.69	67.77%	\$90,311,305.65	0.73%
Total Non-Personnel Costs	\$29,961.68	-25.57%	\$15,816,837.66	0.19%

### 2.1b Budget Requests

Rank	Location	SP	M	Amount	Brief Rationale
0001	Santa Rosa	01	01	\$1,000.00	To cover increasing costs of graphics
0002	Santa Rosa	04	02	\$15,000.00	Cost to repair equipment has been rising, and as equipment ages, more repairs are needed
0003	Santa Rosa	01	01	\$8,000.00	Our yearly software subscription costs are rising as technology increases in automobiles. These repair information databases are essential to train our students.
0004	Santa Rosa	04	01	\$18,000.00	Our expenses for supplies are rising every year due to impacted classes. More students means more supplies used, and more wear-and-tear costs.

## 2.2a Current Classified Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Administrative Assistant	20.00	12.00	Keeps the programs running in all respects concerning the Lounibos Trade Technology Center office.
Auto Shop Assistant	40.00	12.00	Organizes and manages the auto shop activities. Orders supplies, monitors the shop activity, accounts for shop tools handed out and checked in, controls the flow of work projects in and out of the shop, takes care of shop maintenance and repair activities.

## 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 Alternative Fuels)

## 2.2c Current STNC/Student Worker Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Federal Work Study Students	20.00	10.00	Clean up and maintenance of shop and compound. Having to limit ourselves to just federal work study students makes it much harder to find qualified students.

## 2.2d Adequacy and Effectiveness of Staffing

The Industrial and Trade Technology department is significantly understaffed compared to the district averages, and the figures below will support this statement. The programs generate significant FTES with minimal staffing. The vast majority of lab classes, especially evening and weekend classes, have no lab assistant support; the faculty is required to set up and run their own labs, while also working the tool room. It is in the best interests of our students to utilize a lab assistant in all of our lab classes (this is true for many reasons).

We need additional classified staffing to manage the automotive lab during all sections and hours of operation: day, evening, and weekend classes. This new classified staff person would also coordinate with our current daytime shop manager to fill in for each other during vacation periods or during time off required by personal affairs. Please note that currently the automotive instructor or instructors working evenings or weekends are responsible for securing the tool room, monitoring shop safety, handing out tools and equipment, and acquiring job materials and supplies. This overload of responsibility for the instructor comes at the detriment of instruction and personal attention given our students, and negatively affects the quality of education that we are providing the students.

We also need funding for 25 hours a week of lab assistants to maintain shop and equipment. Having to rely only on federal work study students has severely limited our

hiring options to the point of many times not being able to find someone qualified to work in the shop.

Additional hours for the Service Center Administrative Assistant are essential, as this assistant provides necessary duties to five instructional areas and will be needed as the job duties increase with added responsibility. A 100% position is indicated by the constant state of "catch-up" that we are playing with the logistics and paper work in the Industrial & trade Technology Department!

## Automotive Technology - FY 2013-14

### 2.2 Fiscal Year Employee Data and Calculations

#### Employee Head Counts

Employee Category	Count	Change from 2012-13	District Total	% of District Total
Contract Faculty	4	100.00%	277	1.44%
Adjunct Faculty	8	14.29%	1351	0.59%
Classified Staff	1	0.00%	490	0.20%
STNC Workers	0	-100.00%	458	0.00%
Student Workers	0	0.00%	610	0.00%
Mgmt/Admin/Dept Chair	3	0.00%	144	2.08%

#### Employee FTE Totals

FTE Category	FTE	Change from 2012-13	District Total	% of District Total
FTE-F - Faculty	7.9211	39.52%	679.6236	1.17%
FTE-CF - Contract Faculty	3.9000	95.00%	274.8500	1.42%
FTE-AF - Adjunct Faculty	4.0211	9.34%	404.7736	0.99%
FTE-C - Classified	1.0000	0.00%	407.3756	0.25%
FTE-ST - STNC	0.0000	-100.00%	63.8460	0.00%
FTE-SS - Support Staff	1.0000	-1.98%	647.5458	0.15%
FTE-SW - Student Workers	0.0000	0.00%	176.3242	0.00%
FTE-M - Management	0.4200	0.00%	114.8000	0.37%
FTE-DC - Department Chairs	0.0000	0.00%	50.0000	0.00%

#### Student Data

Data Element	Value	Change from 2012-13	District Total	% of District Total
FTES-CR - Credit	142.8819	5.57%	16276.6188	0.88%
FTES-NC - Non-Credit	0.0000	0.00%	2028.0819	0.00%
FTES - combined	142.8819	5.57%	18304.7007	0.78%
Students Enrolled/Served	591	-5.29%	30000	1.97%

#### Calculations

Data Element	Value	Change from 2012-13	District Total	% of District Total
FTE-S : FTE-F	18.0381	-24.33%	26.9336	66.97%
FTE-AF : FTE-CF	1.0311	-43.93%	1.4727	70.01%
FTE-F : FTE-SS	7.9211	42.34%	1.0495	754.72%
FTE-F : FTE-M	18.8598	0.00%	5.9201	318.57%
FTE-SS : FTE-M	2.3810	0.00%	5.6406	42.21%
FTE-ST : FTE-C	0.0000	-100.00%	0.1567	0.00%
Average Faculty Salary per FTE-F	\$54,809.51	21.23%	\$63,631.61	86.14%
Average Classified Salary per FTE-C	\$50,826.35	5.58%	\$47,086.12	107.94%
Average Management Salary per FTE-M	\$79,504.52	0.00%	\$74,139.11	107.24%
Salary/Benefit costs as a % of total budget	95.64%	5.47%	75.10%	127.35%
Non-Personnel \$ as a % of total budget	4.36%	-53.21%	13.15%	33.17%
Restricted Funds as a % of total budget	1.38%	-77.61%	11.75%	11.74%
Total Unit Cost per FTE-F	\$86,705.83	14.02%	\$176,941.86	49.00%

Total Unit Cost per FTE-C	\$686,806.37	59.07%	\$295,191.61	232.66%
Total Unit Cost per FTE-M	\$1,635,253.26	0.00%	\$1,047,507.50	156.11%
Total Unit Cost per FTE-S	\$4,806.81	50.68%	\$6,569.56	73.17%
Total Unit Cost per student served/enrolled	\$1,162.11	67.95%	\$4,008.46	28.99%

## Automotive Technology - FY 2013-14

### 2.2a Classified Positions Employees paid from a Classified OBJECT code

Name Last	First	Position	Hours	FTE
Yeast	David		0.00	1.0000
<b>Totals</b>			<b>0.00</b>	<b>1.0000</b>

## Automotive Technology - FY 2013-14

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

Name Last	First	Position	Hours	FTE
Gully	Brian	Faculty	0.00	0.0500
Norton	Clifford	Faculty	0.00	0.3200
Whitaker	Benjamin	Faculty	0.00	0.0500
<b>Totals</b>			<b>0.00</b>	<b>0.4200</b>

## Automotive Technology - FY 2013-14

### 2.2c STNC Workers Employees paid from an STNC OBJECT code

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

## Automotive Technology - FY 2013-14

### 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	Santa Rosa	01	01	Lounibos Service Center Administrative Assistant	Lounibos Service Center Administrative Assiistant	Classified
0002	Santa Rosa	01	01		Auto Shop Assiistant	Classified
0003	Santa Rosa	01	01		Auto Shop Assiistant 10 months	Classified

## 2.3a Current Contract Faculty Positions

Position	Description
1	Automotive Instructor: specialized in brake, suspension, and engine overhaul
2	Automotive instructor: specialized in electrical, electronics, computer systems, hybrid vehicles, and engine performance (including smog laws and procedures)

2.3b Full-Time and Part-Time Ratios

Discipline	FTEF Reg	% Reg Load	FTEF Adj	% Adj Load	Description
automotive	1.3100	29.0000	2.2000	71.0000	Our full-time/part-time ratio is roughly 30/70, which is opposite of ideal.

## 2.3c Faculty Within Retirement Range

The Automotive Department has two contract faculty who are within retirement range, one of whom is scheduled to retire at the end of 2014/2015.

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

Currently the automotive department employs 2 full time faculty instructors. The department also has 4 adjunct instructors currently teaching, and most of these adjunct instructors have full-time day employment. It has been difficult to locate qualified licensed and credentialed automotive technicians who are willing to take a cut in pay to become adjunct instructors.

We must maintain our adjunct instructor pool. As the economy improves, the automotive department will need to offer more sections to fulfill the community needs, and this will require more faculty (either full time or part time).

To remain a California Bureau of Automotive Repair (BAR) licensed training institution we are required to: maintain contact with the BAR, keep curriculum in compliance with state training standards, receive and review all updates, maintain records, and ensure that we are in compliance with California regulations. We are audited by the BAR on a biannual basis, during which the auditor checks our equipment, materials, facilities and record maintenance for the official BAR classes. The faculty member responsible for all the above BAR duties must be licensed by the State of California.

## Automotive Technology - FY 2013-14

### 2.3a Contract Faculty Positions

Employees paid from a Contract Faculty OBJECT code

Name Last	First	Position	Hours	HR FTE	DM FTE
Gully	Brian	Faculty	0.00	0.9500	0.0000
Miller	Robert	Faculty	0.00	1.0000	0.0000
Norton	Clifford	Faculty	0.00	1.0000	0.0000
Whitaker	Benjamin	Faculty	0.00	0.9500	0.0000
<b>Totals</b>			<b>0.00</b>	<b>3.9000</b>	<b>0.0000</b>

## Automotive Technology - FY 2013-14

### 2.3b Adjunct Faculty Positions

Employees paid from an Adjunct Faculty OBJECT code

Name Last	First	Position	Hours	FTE
Adelman	Paul		389.50	0.5778
Dhaliwal	Hari		70.00	0.1111
Lemmer	David		128.00	0.2222
Miller	Robert		301.25	1.0000
Norton	Clifford		202.00	1.0000
Ristad	Edwin		289.00	0.5100

Sanguinetti	Richard		207.00	0.3778
Yaswen	Gordon		140.00	0.2222
<b>Totals</b>			<b>1726.75</b>	<b>4.0211</b>

2.3e Faculty Staffing Requests

Rank	Location	SP	M	Discipline	SLO Assessment Rationale
0001	Santa Rosa	02	01	Automotive	Automotive Technology could use one additional full-time faculty memeber to support the large number of students enrolled, and provide the best training to our students.

## 2.4b Rational for Instructional and Non-Instructional Equipment, Technology, and Software

### **NATEF Accreditation:**

We are going through the NATEF (National Automotive Technicians Education Foundation) accreditation process. This process has been endorsed and applauded by our advisory committee as a positive move for the automotive department. The process will require meeting NATEF equipment, faculty, safety, and facilities standards; to meet these standards will require most of the items denoted below, plus additional items unknown at this time.

### **Training Vehicles:**

We have offered our Intro to Hybrid Vehicles class for four semesters with only SRJC's single Prius for the students to train on. We have asked several area dealerships for donations of older hybrid vehicles, but we should plan on purchasing at least two vehicles with our own funds to ensure that we have adequate vehicles to run a quality lab class.

Note: We have recently (Spring 2013) purchased two hybrid vehicles from Sonoma County Fleet Services, but we are still in need of four to six vehicles for use in our general lab activities. The vehicles that we are using are early to mid-nineties production cars. They are not what we should be training our students on, as they are fading into irrelevance.

### **Transmissions and Drivelines:**

#### **Automotive:**

Equipment in the shop is old, and not aging well. We need new equipment to keep current with industry technology. We need to replace tools as they age, break, and in some cases get stolen due to lack of tool room staff coverage during night and weekend classes.

In many cases our shop equipment (and classroom equipment) has slipped below industry expectations and standards. We have borrowed from other programs when it is possible, and have relied heavily on industry donations to get us by, but these strategies only give us a portion of what we need.

**Aftermarket Scan Tools:** To train our students in the areas desired by local employers, the Auto Technology Program needs at least four scantools that are up-to-date and representative of what our students will use in local repair shops. These tools are essential to allow our students to get hands-on experience in the basic skills of vehicle diagnosis.

Many of our scantools have two or more updates a year, but in the interest of getting the best value for the college, updating every year or two would be adequate.

**Update Manufacturer Scan Tools:** Our manufacturer scantools need to be updated every year. If they are not updated they become inoperable, and useless for training. Like our All-Data and Mitchell-On-Demand repair information systems, these software driven devices will be a yearly expense and need to be factored into the department budget.

Our repair information systems and our manufacturer scantools are necessary to train our students properly, and prepare them to go into the workforce.

**All-Data and Mitchell-On-Demand Update:** It is essential that we update our Mitchell-On-Demand and All-Data auto repair reference systems. They are on a year to year subscription basis online, and will be an ongoing annual expense. Keeping the subscriptions current is essential because publishers no longer print service manuals; and when the subscription for online access expires, the system shuts down and we have no information to teach or perform repairs with.

**Upgrade Scan-Tools:** In addition to obtaining several new scan tools, we need to update the scan tools that we have. These updates consist of software and any cable sets or peripheral hardware pieces that are necessary to operate the scan tools with the software. It is important to have at least two tools that are up to date in order to train students with what the industry is currently using.

**Install Media Projectors:** The education industry has moved into PowerPoint media in a big way, and so has the automotive industry. We need readily available multimedia equipment in our two classrooms to efficiently train our students.

**Media Enhanced Classrooms:** We would prefer to skip the media projectors and have our classrooms converted to media enhanced rooms. As soon as possible, please consider converting our remaining two classrooms into enhanced training environment rooms.

**Update SPX Analyzer/Smog Machines:** Our analyzers are out of date and nonfunctional. The updates and repairs are necessary to teach emissions test and repair as it is currently performed in the State of California.

Completed in fall 2012 with CTEA funds

**New Tool Boxes:** We do not require that our students purchase their own tool sets in order to receive training. We provide tool boxes that the students sign out and utilize in our lab classes. Two things are addressed by the request for new boxes: 1. our current boxes are so old that several of the steel bottoms have actually worn through. 2. Our classes are so full that we need to add several new boxes, complete with basic tools, to cover the demand of student community.

**Transmission Dyno:** A transmission dynamometer would be a very beneficial teaching tool for our automatic transmission classes. Without one, the students are not held to a very high standard of skill and understanding concerning disassembly, diagnosis, and repair of automatic transmissions. It is relatively easy for a student to talk his or her way through an explanation of how the transmission works and point out the internal parts, but a much more difficult task to actually make it function. A transmission dynamometer would allow the transmission instructor to bolt the transmission to a power drive source (engine) and operate it under simulated driving conditions while observing internal pressures and monitoring gear shift points. It is an empirical test of the student's skill and a real dose of reality for the student.

**Engine Balancing Equipment:** A device to teach static and dynamic balancing of internal engine components would be a great aid in teaching students how critical the weight, straightness, and alignment of engine rotating components are. It is a visual and hands on experience for them that will be beneficial throughout their careers, whether they go into engine repair work, engine vibration diagnosis, or general automotive repair and servicing.

**Water Treatment Unit:** The Automotive Department has turned very green in the last decade or two. We are under scrutiny from internal SRJC monitoring staff and outside inspectors to ensure full compliance with state, local, and federal laws, and we gladly do our part. However, doing our part has become much more difficult over the last few years due to the elderly condition of our water treatment system. We trap all water used to wash anything in our outside wash areas, treat and filter the water, and reuse it. This is a vital part of our day to day lives, and its temperamental break downs due to advanced age make conducting our training operations very difficult.

**I&TT Department Computer Lab:** We would like to have an in-department computer lab that would deal with the specialized software used by our Automotive, Diesel, and Machine Tool departments. Of special note is our desire to initiate a class in service management and ethics that would be geared toward the automotive industry (to begin with). This requires at least 20 computers to allow the class to do their instructor led training utilizing the latest automotive information and business software. While we might be able to run this class in the shop, it seems that it would be more conducive to learning if it was taught in a dedicated computer lab. Also, if taught in the lab it would require 20 more computers and take valuable lab time away from our hands-on lab classes.



## 2.4c Instructional Equipment and Software Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Santa Rosa	02	01	Electric Forklift	1	\$50,000.00	\$50,000.00	Cliff Norton	2360	Cliff Norton
0001	Santa Rosa	01	01	Vehicles to utilize for training	4	\$7,000.00	\$28,000.00	Cliff Norton	2360	Cliff Norton
0002	Santa Rosa	02	01	OnLine Mitchell-On-Demand Service Reference System	1	\$1,400.00	\$1,400.00	Cliff Norton	2360	Cliff Norton
0003	Santa Rosa	02	01	All-Data Service Reference System	1	\$1,400.00	\$1,400.00	Cliff Norton	2360	Cliff Norton
0004	Santa Rosa	01	01	Electronic Alignment System	1	\$35,000.00	\$35,000.00	Cliff Norton	2360	Cliff Norton
0005	Santa Rosa	04	07	Yearly safety inspection & certification of hoists	12	\$125.00	\$1,500.00	C Norton	2360	C Norton
0006	Santa Rosa	02	01	Yearly Upgrade of aftermarket Scantools	4	\$800.00	\$3,200.00	Cliff Norton	2360	Cliff Norton
0007	Santa Rosa	02	01	Yearly Upgrade of Mfr. Scantools	3	\$1,000.00	\$3,000.00	Cliff Norton	2360	Cliff Norton
0008	Santa Rosa	01	01	Transmissions & drivelines to utilize for training	40	\$300.00	\$12,000.00	Cliff Norton	2360	Cliff Norton
0009	Santa Rosa	01	01	Student Tool Boxes	20	\$1,000.00	\$20,000.00	Cliff Norton	2360	StudenTool
0010	Santa Rosa	04	01	Computers	20	\$1,000.00	\$20,000.00	Cliff Norton	2360	Bob Miller
0011	Santa Rosa	04	01	Auto Lab Network Drops	12	\$75.00	\$900.00	Cliff Norton	2360	Cliff Norton
0012	Santa Rosa	04	01	Media Classroom Conversions	2	\$30,000.00	\$60,000.00	Cliff Norton	2329 & 2360	Cliff Norton
0013	Santa Rosa	01	07	Classroom tables and chairs	60	\$400.00	\$24,000.00	C Norton	2360 and 2329	C Norton
0014	Santa Rosa	02	01	Engine Performance Diagnostic Equipment	1	\$6,000.00	\$6,000.00	C Norton	2360	C norton
0015	Santa Rosa	01	01	Air Conditioning Diagnostic Equipment	1	\$6,000.00	\$6,000.00	C. Norton	2360	C. Norton
0016	Santa Rosa	01	01	Digital Inductive Ammeters	4	\$500.00	\$2,000.00	C Norton	2360	C norton
0017	Santa Rosa	01	01	Aftermarket Scan Tools (non-factory tools)	4	\$4,000.00	\$16,000.00	Cliff Norton	2360	Cliff Norton
0018	Santa Rosa	04	01	ITT Computer Lab	1	\$100,000.00	\$100,000.00	Cliff Norton	2360	Cliff Norton
0019	Santa Rosa	01	01	Engine Balancing Equipment	1	\$50,000.00	\$50,000.00	Cliff Norton	2360	Cliff Norton
0020	Santa Rosa	01	01	Transmission Dyno	1	\$100,000.00	\$100,000.00	Cliff Norton	2360	Bob Miller

## 2.4d Non-Instructional Equipment, Software, and Technology Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0002	Santa Rosa	04	07	Lounibos conference/meeting area chairs	25	\$300.00	\$7,500.00	T. Hruby	2319	Cliff Norton
0003	Santa Rosa	04	07	Lounibos conference/meeting area tables	5	\$600.00	\$3,000.00	T.Hruby	2319	Cliff Norton
0005	Santa Rosa	04	03	Water recycle system	1	\$45,000.00	\$45,000.00	Bob Miller	2360, 2370	Bob Miller

## 2.5a Minor Facilities Requests

Rank	Location	SP	M	Time Frame	Building	Room Number	Est. Cost	Description
0001	Santa Rosa	04	01	Urgent	Lounibos	2347 and 2330	\$20,000.00	Cool down classrooms 2347 and 2330 during the Spring, Summer, & Fall period. Have had to cancel class due to extreme temperatures, particularly when machines are in operation. This creates a very real health and safety hazard for the students.

0006	Santa Rosa	04	07	2-3 Yr	Lounibos	2360 Rear Storage Area	\$117,500.00	Overhead cover for our cars and equipment stored outside along the Lounibos compound West wall.
0007	Santa Rosa	04	01	2-3 Yr	Unknown	Unknown	\$0.00	Double the automotive department's square footage and include a body shop training facility. As part of the building improvement, Machine Tool and Welding facilities should also be expanded, while moving Diesel program to Shone Farm to allow training students on heavy equipment.

## 2.5b Analysis of Existing Facilities

Existing facilities are not adequate in space, storage or technology.

I think that when the economy and funding improve, SRJC should consider building a new Industrial Trade Technology facility, complete with an adequately sized diesel equipment shop, an auto body shop training section, an advanced production section, an automotive complex, and a large, state-of-the-art welding shop. If we want to be a focal point for trade technology training in Northern California, and to do our very best for the community, we will need a new complex. A large and modern training facility that expands on our initiative to train our students in a skill-trade that will allow them to go to work in our community.

In the meantime, we need an additional covered storage area along the West wall of the Lounibos compound to prevent weather damage to our vehicles and equipment that are stored outside.

Media Enhanced Classrooms are a necessary update to educate our students in the twenty-first century. As a stop gap minimum, we need to have multimedia projectors installed in our classrooms. This type of media based training is effective and is the most common training medium in use by auto and truck manufacturers today. As such, it is completely appropriate for our students.

\*To all those involved in getting us our first media enhanced classroom (due during Summer of 2012), thank you very much from all of us in the Automotive Department!

Current classrooms have not been painted since the building was built 30 years ago, and are in poor condition.

Many bricks have fallen off the outside facade of the Lounibos building, making it look forlorn and tacky.

These are both inexpensive jobs that will enhance our students' experience and make us look dignified to the public.

## 3.1 Develop Financial Resources

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## 3.2 Serve our Diverse Communities

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

We try to recruit both students and instructors from local businesses that service a wide demographic area. Also, the Automotive Department encourages faculty participation in classes and flex sessions (offered on or off campus) that broaden our staff's cultural awareness and sensitivity.

### 3.3 Cultivate a Healthy Organization

The Automotive Department supports the professional development of our classified staff by allowing them time during normal work hours to attend training sessions. These sessions are designed to train the employees in subject areas that allow them to better do their jobs. Examples of these subjects are: PRPP writing, CIS, forklift safety and operation, first-aid, CPR, and any other training applicable to their jobs.

Our faculty members, both contract and adjunct, are encouraged to attend automotive training seminars offered both on-campus and off. These training sessions are usually certified for flex credit, and if the session requires travel, the costs can be funded with a mini CTEA grant.

### 3.4 Safety and Emergency Preparedness

We have one safety leader and one safety coordinator in our unit (but not in our Automotive Program)

### 3.5 Establish a Culture of Sustainability

## SRJC's Core Values for Sustainability

- Aspire to Zero Waste
- Use Renewable Resources for Energy
- Integrate Source Reduction Strategies
- Practice Local & Organic Food Sourcing
- Use Green Building Principles in all Projects
- Limit Greenhouse Gas (GHG) Emissions (Climate Protection)
- Purchase Using Fair Trade Guidelines
- Integrate Sustainability Throughout Curriculum

Our Automotive Program is located in Lounibos Hall. The following clip from SRJC's sustainability website shows that even our building is active in the college's sustainability goals!

#### **Lounibos Photovoltaic Project**

**After one year of operation, the project generated 80 kW of electricity at peak output, and has been augmented to add 30 kW more capacity. The original rebate was over \$300,000, and the new addition qualified SRJC for an additional rebate.**

The following two clips from the sustainability website point out the college's interest in the growth of sustainable transportation. In the Automotive Technology

Program we require our Intro to Hybrid Vehicles class be completed to obtain an Automotive certificate.

We also offer classes in alternative fuels and electric car theory, function, and construction (unfortunately, these classes are currently not offered due to budget cutbacks).

### **Electric Vehicles**

**SRJC is replacing aging vehicles in its fleet with electric and hybrid service vehicles to reduce emissions and lower fuel costs.**

**Improvement of transportation efficiency to reduce petroleum consumption, improving fleet fuel efficiency, utilizing alternative fuel vehicles (AFVs) and alternative fuels**

### **Transportation Alternatives**

**[SRJC's Industrial and Trade Technology Department](#) – Alternative Fuels, Hybrid Automobiles, Electric Cars, Diesel Technology.**

This clip talks about SRJC's technical training in sustainable fields. Our Automotive Program is one of those fields.

### **Career and Technical Education**

**Santa Rosa Junior College's expert faculty, strong connections to North Bay employers, and more than 160 career skills certificates ensure that businesses and their employees have access to instruction that is timely and focuses on current technology and practices. See the [Career and Technical Education site](#) and the [Certificates page](#) for more information.**

In addition to all of the above items, Automotive Technology has been recycling for years. All of our oil, antifreeze, brake fluid, batteries and hazardous chemicals are recycled or disposed of properly. We recycle paper, cardboard and metal, and all of our wash rack water is captured, treated, cleaned and reused at the wash rack facility.

We are attempting to save district funds by turning off lights, we are cutting back on copies and attempting to do more handouts either online, or on disk. On faculty member is going to be taking Moodle Boot Camp and try to put a hybrid course online.

## **4.1a Course Student Learning Outcomes Assessment**

We have worked exhaustively with our advisory members to construct meaningful course SLOs, and the Automotive Department's SLOs have all been written. We are now beginning the process of writing our assessment protocols and will continue the process through 2011 - 2014. Our goal is to have one assessment written for each course by the end of Fall 2012.

As of Spring 2014 we have assessed all currently offered automotive courses. As the result of our assessments we have made adjustments to courses as indicated by assessment results, and we will reevaluate these courses during the next assessment cycle.

Please note the table below to view schedule and completed assessments:

### AutoTechnology; Course SLO Assessment Six Year Cycle

Course	F2011	S2012	F2012	S2013	F2013	S2014	F2014	S2015
Auto 51 - Auto Engines		X (SLO 3)					X	
Auto 52 - Engine Per/Poll Cont	X (SLO 3)					X		
Auto 53 - Auto Drive Train				X (SLO 2)				X
Auto 54 - Brakes,Strg., Susp.		X (SLO 1)						
Auto 56 - auto electric system		X (SLO 3)						
Auto 100 - Intro Auto Tech			X (SLO 1)					
Auto 125 - Auto Heat and A/C					X (SLO 1)			
Auto 194 - Intro Hybrd Vehicle					X (SLO 2)			
Auto 108 - clean air car cours					X (SLO 1)			
*Auto 109 -Bar Update Training								
*Auto 110 - Electric/electronic								
*Auto 111 - Engine performance								
*Auto 112 - Driveability/Emiss.								
*Auto 190.1 - Alt Fuels & Syst								
*Auto 190.1L - Alt Fuels Lab								
*Auto 191 - Advanced Alt Fuels								
*Auto 193.1 - Electric Vehicles								
*Auto 195 - Hybrid Veh. Safety								
X=Scheduled								
X=Completed								
Required Courses								
*Not Currently Offered								

## 4.1b Program Student Learning Outcomes Assessment

The Automotive Department has completed all course level SLOs, and we have completed our initial assessment of all certificates. We are using a "bottom up" assessment model to evaluate our certificates, and At SRJC, our cycle is each certificate/major must be assessed at least once every six years.

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

## Automotive Technology; Certificate Assessment Six Year Cycle

Course	Semester						
	F2011	S2012	F2012	S2013	F2013	S2014	F2014
Certificate: Engine Repair Specialist			C				X
Certificate: Transmission Specialist				C			
Certificate: Brakes, Steering and Suspension Specialist				C			
Certificate: Electrical and Electronics Systems Specialist						C	
Certificate: Heating and Air Conditioning Systems Specialist						C	
Certificate: Tune-Up and Electronics Specialist						C	
Certificate: Automotive Technology						C	

X=Scheduled

C=Completed

Automotive Technology Certificates

\*Not Currently Offered

### 4.1c Student Learning Outcomes Reporting

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	Auto 51 - Auto Engines	Spring 2012	Spring 2012	N/A
Course	Auto 52 - Engine Per/Poll Cont	Fall 2011	Spring 2012	N/A
Course	Auto 53 - Auto Drive Train	Spring 2013	Spring 2013	Spring 2013
Course	Auto 54 - Brakes,Strg., Susp.	Spring 2012	Spring 2012	N/A
Course	Auto 56 - auto electric system	Spring 2012	Spring 2012	N/A
Course	Auto 100 - Intro Auto Tech	Fall 2012	Spring 2013	N/A
Course	Auto 108 - clean air car cours	Fall 2013	Spring 2014	Fall 2014
Course	Auto 194 - Intro Hybrd Vehicle	Fall 2013	Spring 2014	Spring 2014
Course	Auto 125 - Heating and A/C	Fall 2013	Fall 2013	N/A
Course	Auto 110 - Electric/electronic	N/A	N/A	N/A
Course	*Auto 111 - Engine performance	N/A	N/A	N/A
Course	Auto 112 - Driveability/Emiss.	N/A	N/A	N/A
Course	Auto 190.1 - Alt Fuels & Syst	N/A	N/A	N/A

Course	Auto 190.1L - Alt Fuels Lab	N/A	N/A	N/A
Course	Auto 191 - Advanced Alt Fuels	N/A	N/A	N/A
Course	Auto 193.1 - Electric Vehicles	N/A	N/A	N/A
Course	Auto 195 - Hybrid Veh. Safety	N/A	N/A	N/A
Course	Auto 109 -Bar Update Training	N/A	N/A	N/A
Certificate/Major	Tune-up & Electronics	Spring 2014	Spring 2014	N/A
Certificate/Major	Engine Repair Specialist	Fall 2012	Fall 2012	N/A
Certificate/Major	Transmission Specialist	Spring 2013	Spring 2013	Fall 2013
Certificate/Major	Brakes, Strg. and Susp.	Spring 2013	Spring 2013	N/A
Certificate/Major	Electrical & Electronics	Spring 2014	Spring 2014	N/A
Certificate/Major	Auto HVAC	Spring 2014	Spring 2014	N/A
Certificate/Major	Auto Technology Certificate	Spring 2014	Spring 2014	N/A
Certificate/Major	Auto Technology Major	Fall 2014	Fall 2014	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
Auto 100	X	X	X	X			X	X	X	X	X	X				X
Auto 125	X	X	X	X	X		X	X	X	X	X	X				X
Auto 51	X	X	X	X			X	X	X	X	X	X				X
Auto 52	X	X	X	X			X	X	X	X	X	X				X
Auto 53	X	X	X	X			X	X	X	X	X					
Auto 54	X	X	X	X			X	X	X	X	X	X				X
Auto 56	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 only failing to meet the institutional student learning outcome regarding personal health. We will implement this institutional student learning outcome in our program in the future.

## 5.0 Performance Measures

We are a BAR Certified Auto Repair Training facility.

Instructors are all ASE certified.

We will continue to work on NATEF certification next year.

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

The Industrial and Trade Technology department offers both day and evening courses and has recently started offering weekend classes. We have not expanded to other campuses/sites as there are no shop facilities available at the present time, and budget constraints are dictating that we shrink our programs, not expand them.

We do not offer a distance learning component as all the current classes are hands on. We are trying to identify courses that can be modified to in such a manner as to allow offering them as hybrid classes.

We would be better able to serve our students if we had more equipment available for them to learn on.



# Automotive Technology - A5.1 Student Headcounts

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

## Santa Rosa Campus

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	42	287	230	61	267	250	40	279	294

## Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0	0	0	0	0	0	0	0	0

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0	0	2	0	0	16	0	0	11

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	42	287	232	61	267	266	40	279	305





## 5.2a Enrollment Efficiency

These figures are not an accurate reflection of our program's performance.

I did a quick calculation of the Automotive Technology Department's enrollment efficiency for Spring 2011 and came up with *125% enrollment efficiency!* Class size has been about the same for the last several semesters, therefore past figures also appear incorrect. My calculation of 125% efficiency is based only on instructor lead classes and does not include nontraditional sections.

It appears that there are data calculation problems for Auto Technology's courses, possibly due to the innovative sections that we run. Many sections are fundamentally different those found in most disciplines. Some examples are:

- Auto 99...Automotive Occupational Work Experience. *This is not a class that is taught by an instructor.* This is a supervised employment designed to provide on-the-job occupational education, but it shows up as having 20 "seats" (while the actual enrollment is only 1 to 3), and if it is factored in as a traditional class it will negatively impact our numbers.
- Auto 98...Independent Study in Auto Mechanics. *This is not a class that is taught by an instructor.* This is a supervised lab project designed to allow students to practice and enhance their mental and hands-on skill while earning three credits. It has a class limit of just five students, and, due to the low maximum section enrollment, if it is factored in as a traditional class it will negatively impact our numbers.
- Auto 100...Introduction to Automotive Technology. This is a traditional class and is suggested as the first class that our automotive students take. *But we also offer this class in five or six nontraditional sections that offer students the opportunity to gain credit for this class through Credit By Exam.* These are typically sections with an enrollment limit of 5, and, if they are factored in as traditional class sections, will drag our numbers down.
- Auto 194...This is a class that is co-listed as Det 194. One Automotive instructor is teaching the single section that we typically offer, but the Automotive Department receives credit for only the students who have enrolled through Auto, *not Det.* This will obviously skew our numbers negatively.
- Auto 190.1 and Auto 190.1L...These are skewing our numbers in the same manner as Auto 194. These sections are also co-listed as Det sections but are taught by one Automotive instructor.

The Automotive Technology Department is much more efficient and its sections are much more crowded than is suggested by this data. We have been overfilling our sections by 25% to 50% for the last three semesters in an attempt to offer training to the students who cannot find classes due to schedule reductions.

## Automotive Technology - Automotive Technology - FY 2013-14 (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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	92.5%	105.6%	92.5%	152.5%	118.2%	104.3%	100.0%	115.0%	110.0%

### **Petaluma Campus** (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0.0%	0.0%	20.0%	0.0%	0.0%	40.0%	0.0%	0.0%	18.3%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	92.5%	105.6%	89.6%	152.5%	118.2%	94.9%	100.0%	115.0%	92.8%



## 5.2b Average Class Size

During the semesters spring 2007 through spring 2009 our class size ran from an average high of 18.9 to a low of 12.5. The average class size was fairly consistent until 2009/2010, and now we run **about** 24. The increase is due to an unprecedented number of students wishing to enroll, coupled with a lack of budget to offer more sections.

Our class size limit is generally 20 students due to the difficulty of safely conducting lab sessions that include students utilizing power equipment and hand tools.

## Automotive Technology - Automotive Technology - FY 2013-14 (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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	18.5	21.9	20.2	30.5	23.6	22.3	20.0	23.0	23.8

### Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0.0	0.0	2.0	0.0	0.0	4.0	0.0	0.0	1.8

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	18.5	21.9	18.7	30.5	23.6	17.4	20.0	23.0	16.5

## 5.3 Instructional Productivity

Please note the schedule table below:

Our productivity ranged from 11.66 through 13.03 in the period spring 2007 through spring 2009. The fall 2009, spring 2010, and Fall 2010 data have increased steadily but this data may be misleading; please refer to the rationale noted in section 5.2a.

Our programs tend to lower class size than the district goal (generally a maximum of 20) due to safety issues in the lab environment. We recently hired (2009) a second full time faculty member for Auto/Alternative Fuels. The extra faculty member coupled with the surge in class size (caused by the economic downturn) will increase our productivity ratio.

As the data below illustrates, our productivity is now approximately 15 to 19, so we are very close to the district average (due to overloading our classes to try and meet student demands)..

## Automotive Technology - Automotive Technology - FY 2013-14 (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

Automotive Technology		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	9.88	68.09	59.77	7.11	66.14	62.10	9.20	65.26	68.42
	FTEF	0.87	4.75	3.99	0.37	4.24	4.13	0.78	4.39	4.36
	Ratio	11.38	14.33	14.98	19.04	15.59	15.02	11.76	14.86	15.71

### Petaluma Campus (Includes Rohnert Park and Sonoma)

Automotive Technology		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ratio	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)

Automotive Technology		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FTEF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ratio	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)

Automotive Technology		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
	FTES	9.88	68.09	59.77	7.11	66.14	62.10	9.20	65.26	68.42
	FTEF	0.87	4.75	3.99	0.37	4.24	4.13	0.78	4.39	4.36
	Ratio	11.38	14.33	14.98	19.04	15.59	15.02	11.76	14.86	15.71



## 5.4 Curriculum Currency

All of our core courses are current, (except those going inactive or currently being revised to 100 level courses) and our SLOs have been written. Our SLOs are posted on the web.

One must be careful reading the following course currency listing data. Most courses have multiple versions listed, but only the most recent should be referenced. Also, several courses are only proposed.

DisciplineNbr	VersionNbr	TermCourseLastTaught	DateLastReview	CourseStatus	ApprovalStatus	Cred
AUTO 108	3	Fall 2014	4/20/2009	Changed Course	Approved	no
AUTO 109	5	Summer 2009	9/20/2010	Changed Course	Approved	no
AUTO 125	2	Fall 2014	9/20/2010	Changed Course	Approved	no
AUTO 153	1		12/8/2014	New Course (First Version)	Approved	no
AUTO 156	1		12/8/2014	New Course (First Version)	Approved	no
AUTO 190.1	2	Fall 2011	3/28/2011	Changed Course	Approved	no
AUTO 192	2	Fall 2007	9/27/2010	Changed Course	Approved	no
AUTO 194	1	Fall 2014	10/11/2010	New Course (First Version)	Approved	no
AUTO 195	1		9/20/2010	New Course (First Version)	Approved	no
AUTO 196	1		5/7/2012	New Course (First Version)	Approved	no
AUTO 51	6	Fall 2014	9/20/2010	Changed Course	Approved	no
AUTO 52	5	Fall 2014	9/20/2010	Changed Course	Approved	no
AUTO 53	6	Fall 2014	2/7/2011	Changed Course	Approved	no
AUTO 54	6	Fall 2014	2/1/2010	Changed Course	Approved	no
AUTO 56	6	Fall 2014	5/12/2008	Changed Course	Approved	no
AUTO 80	1	Fall 2014	1/27/2014	New Course (First Version)	Approved	yes
AUTO 98	5	Spring 2014	1/23/2012	Changed Course	Approved	no
AUTO 99	4	Fall 2014	5/11/2009	Changed Course	Approved	no
AUTO190.1L	2	Spring 2011	9/27/2010	Changed Course	Approved	no

## 5.5 Successful Program Completion

We always encourage our students to earn an Associate's Degree with a major in Automotive Technology, but if they do not, or can not, accomplish the AA degree we advise them to complete the Automotive program to earn a full Automotive Certificate. In either case we hand out the proper forms near semester end, and explain to them the reasons that they should apply for their certificates, such as improving their employment opportunities.

We award between 8 and 30 full Automotive certificates a year. This number would improve if A & R automatically awarded them, because many students do not complete the paperwork needed to receive their certificates. Our full Automotive certificate numbers have dropped since we started issuing specialty area certificates. We encourage all students to pursue an A.S. or a full Automotive certificate, and to apply for their ASE and Smog licenses.

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We have been over the district total% for retention in each of the last three full semesters.

## Automotive Technology - Automotive Technology - FY 2013-14 (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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	78.0%	75.1%	74.7%	93.3%	82.0%	81.9%	85.0%	74.8%	81.3%

### Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	78.0%	75.1%	74.9%	93.3%	82.0%	83.0%	85.0%	74.8%	82.0%

## Automotive Technology - FY 2013-14 (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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	73.2%	69.6%	66.4%	93.3%	72.3%	77.1%	85.0%	67.3%	69.0%

### Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	73.2%	69.6%	66.7%	93.3%	72.3%	78.5%	85.0%	67.3%	70.2%

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we have been over the district total% for course completion in both of the last full semesters.

## Automotive Technology -

### Latest certificate data:

Cert Code	TOP	Description	Prog Awd	2002 2003	2003 2004	2004 2005	2005 2006	2006 2007	2007 2008
1039	094800	Automotive Technology	A	0	0	0	0	1	5
3032	094800	Automotive Technology	T	12	38	13	16	14	9
3298	094800	Automotive Technology: Brakes, Steering and	E	2	1	0	14	12	7
3299	094800	Automotive Technology: Engine Repair Special	E	2	0	1	5	18	14
3300	094800	Automotive Technology: Transmission Speciali	E	2	0	1	5	21	15
3301	094800	Automotive Technology: Tune-Up and Electroni	E	0	0	0	0	2	4
5054	094800	Automotive Technology: Electric and Electron	O	2	0	0	42	49	36
5055	094800	Automotive Technology: Heating and Air Condi	O	0	0	0	0	15	13

## 5.6 Student Success

Our retention rates have been climbing due to the competitive job market which has made additional skill training an edge in getting hired.

## Automotive Technology - FY 2013-14 (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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	78.0%	75.1%	74.7%	93.3%	82.0%	81.9%	85.0%	74.8%	81.3%

### Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	78.0%	75.1%	74.9%	93.3%	82.0%	83.0%	85.0%	74.8%	82.0%

## Santa Rosa Junior College - Program Unit Review

# Automotive Technology - FY 2013-14 (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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	73.2%	69.6%	66.4%	93.3%	72.3%	77.1%	85.0%	67.3%	69.0%

## Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	73.2%	69.6%	66.7%	93.3%	72.3%	78.5%	85.0%	67.3%	70.2%

# Santa Rosa Junior College - Program Unit Review

## Automotive Technology - FY 2013-14 (plus current FY Summer and Fall)

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

## Santa Rosa Campus

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	3.12	2.77	2.52	3.31	2.61	2.65	2.90	2.35	2.59

## Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	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	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	0.00	0.00	3.00	0.00	0.00	2.19	0.00	0.00	2.36

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014
Automotive Technology	3.12	2.77	2.52	3.31	2.61	2.63	2.90	2.35	2.59



## 5.7 Student Access

Our Automotive Department programs are very diverse ethnically, and closely reflect the area population.

Our trade education is attractive to non-academic college students, in that it offers good earning potential for those not inclined to pursue an academic degree program.

We are not balanced in male/female ratio to the local population. Our classes are approximately 95% male in composition. We probably never will be well balanced, but we do encourage every female student that enters our program. We have begun accelerated outreach to the local high schools, and we will include outreach to the nontraditional automotive student. In the automotive department we consider nontraditional to be female.

Our age percentages are heavily biased to students who are thirty years of age or younger (78%), but we have students in the over sixty-one group also.

### **Please see the tables below for statistical data concerning the Automotive Department:**

## Automotive Technology - FY 2013-14 (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)

Automotive Technology	Ethnicity	2011-12	Percent	2012-13	Percent	2013-14	Percent	2014-15
	White	191	40.4%	189	34.9%	213	38.0%	
	Asian	15	3.2%	16	3.0%	17	3.0%	
	Black	21	4.4%	12	2.2%	25	4.5%	
	Hispanic	166	35.1%	232	42.9%	256	45.7%	
	Native American	3	0.6%	5	0.9%	14	2.5%	
	Pacific Islander	0	0.0%	0	0.0%	2	0.4%	
	Filipino	5	1.1%	1	0.2%	3	0.5%	
	Other Non-White	0	0.0%	0	0.0%	22	3.9%	
	Decline to state	72	15.2%	86	15.9%	8	1.4%	
	<b>ALL Ethnicities</b>	<b>473</b>	<b>100.0%</b>	<b>541</b>	<b>100.0%</b>	<b>560</b>	<b>100.0%</b>	

## Automotive Technology - FY 2013-14 (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)

Automotive Technology	Gender	2011-12	Percent	2012-13	Percent	2013-14	Percent	2014-15
	Male	438	92.6%	508	93.9%	522	93.2%	
	Female	28	5.9%	29	5.4%	32	5.7%	
	Unknown	7	1.5%	4	0.7%	6	1.1%	
	<b>ALL Genders</b>	<b>473</b>	<b>100.0%</b>	<b>541</b>	<b>100.0%</b>	<b>560</b>	<b>100.0%</b>	

## Automotive Technology - FY 2013-14 (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)

Automotive Technology	Age Range	2011-12	Percent	2012-13	Percent	2013-14	Percent	2014-15
	0 thru 18	65	13.7%	94	17.4%	86	15.4%	
	19 and 20	139	29.4%	170	31.4%	195	34.8%	
	21 thru 25	131	27.7%	152	28.1%	143	25.5%	
	26 thru 30	52	11.0%	49	9.1%	47	8.4%	
	31 thru 35	25	5.3%	15	2.8%	24	4.3%	
	36 thru 40	24	5.1%	27	5.0%	16	2.9%	
	41 thru 45	12	2.5%	17	3.1%	24	4.3%	
	46 thru 50	9	1.9%	5	0.9%	9	1.6%	
	51 thru 60	11	2.3%	4	0.7%	14	2.5%	
	61 plus	5	1.1%	8	1.5%	2	0.4%	
	<b>ALL Ages</b>	<b>473</b>	<b>100.0%</b>	<b>541</b>	<b>100.0%</b>	<b>560</b>	<b>100.0%</b>	

## 5.8 Curriculum Offered Within Reasonable Time Frame

Our core programs are offered every semester, as are several automotive certificate electives. Several electives have been put into an alternating semester schedule due to reductions in FTEF.

Students seeking a certificate or degree in Automotive Technology can accomplish this within two years, even with the recent scheduling cutbacks.

## 5.9a Curriculum Responsiveness

Our Automotive Department advisory committee has excellent attendance from industry. These members come from local dealerships, local independent repair shops, local body repair shops and automotive tool sales companies. Only one of these industry people also serves as a member of our adjunct faculty. We also have great attendance by SRJC faculty and staff, local high schools, and outside organizations of various kinds.

Our Automotive Department advisory committee reviewed our curriculum at its Spring 2014 meeting, and gave us feedback. As a result of the feedback we are working on obtaining better training vehicles and equipment to support our lab sections, and we are deactivating some classes while adding to our Alternative Fuels program (hybrid vehicle training, first responder training). They also strongly voiced their opinion that we need to replace our wheel/tire and alignment equipment.

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

We are deeply involved with local high schools and work extensively with the "Manager of School Initiatives and Career Pathway Development" and her department. We have been involved with 2+2 in past years, and now have developed a process that allows local high school auto instructors to administer the SRJC CBE (Credit By Exam) test for our Auto 100 Intro to Automotive Technology class. This allows high school students to enter our SRJC automotive program with advanced standing.

The Industrial Trade Technology courses currently offered through this high school CBE program are:

Auto 80...Intro to Automotive Technology

Det80...Diesel Shop Practices

Det81...Preventive Maintenance and Inspection

## 5.10 Alignment with Transfer Institutions (Transfer Majors ONLY)

The automotive program core courses are transferrable to California CSU schools but not UC schools.

## 5.11a Labor Market Demand (Occupational Programs ONLY)

Feedback from the Automotive Advisory Committee about business and labor expansion is no longer bleak. Things in the auto service and sales sectors are beginning to pick up. The auto business has been in a three year decline that is just beginning to show signs of an upswing. Predictions are for moderate growth over the next few years.

In the North Bay area, College of Marin offers automotive classes and further north, Mendocino College offers an automotive program.

**This is the 2008-2018 nine Bay Area county statistical projection found on the EDD website:**

<b>2008-2018 Occupational Employment Projections Napa Metropolitan Statistical Area (Napa County)</b>								
SOC Code	Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
		2008	2018	Numerical [1]	Percent	New Jobs [2]	Replacement Needs [3]	Total Job [4]



49-3023	Automotive Service Technicians and Mechanics	290	330	40	13.8	5	6	1
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**2008-2018 Occupational Employment Projections**

**San Francisco-San Mateo-Redwood City Metropolitan Division  
(Marin, San Francisco, and San Mateo Counties)**

SOC Code	Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
		2008	2018	Numerical [1]	Percent	New Jobs [2]	Replace-ment Needs [3]	Total Job [4]
49-3011	Aircraft Mechanics and Service Technicians	2,280	2,140	-140	-6.1	0	44	4

**2008-2018 Occupational Employment Projections**

**Santa Rosa-Petaluma Metropolitan Statistical Area  
(Sonoma County)**

SOC Code	Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
		2008	2018	Numerical [1]	Percent	New Jobs [2]	Replace-ment Needs [3]	Total Job [4]
49-3023	Automotive Service Technicians and Mechanics	1,200	1,240	40	3.3	3	23	2

**2008-2018 Occupational Employment Projections**

**Oakland-Fremont-Hayward Metropolitan Division  
(Alameda and Contra Costa Counties)**

SOC Code	Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
		2008	2018	Numerical [1]	Percent	New Jobs [2]	Replace-ment Needs [3]	Total Job [4]
49-3021	Automotive Body and Related Repairers	1,070	980	-90	-8.4	0	28	2

**2008-2018 Occupational Employment Projections**

**San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area  
(Santa Clara and San Benito Counties)**

SOC Code	Occupational Title	Annual Average Employment		Employment Change		Average Annual Job Openings		
		2008	2018	Numerical [1]	Percent	New Jobs [2]	Replacement Needs [3]	Total Job [4]
49-3011	Aircraft Mechanics and Service Technicians	390	400	10	2.6	1	8	

### 5.11b Academic Standards

The Automotive 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 standard.

6.1 Progress and Accomplishments Since Last Program/Unit Review

Rank	Location	SP	M	Goal	Objective	Time Frame	Progress to Date
0001	Santa Rosa	00	00	NATEF Certification for the Automotive program	1. Complete self evaluation 2. Implement necessary changes 3. Have an official inspection team visit and evaluate our program	Spring 2015	1500 - 2000 man hours \$1000 - \$5000 in funds

## 6.2a Program/Unit Conclusions

Location	Program/Unit Conclusions
Santa Rosa	Hybrid Class - Is currently in its sixth semester. The alternative fuels certificate has been put on hold while the Auto department works on skills certificates for alternative fuel courses. The Automotive Technology Department has written Auto 195...Hybrid Vehicle Safety, but lack of funding prevents offering it
Santa Rosa	The Automotive department has articulated Automotive 100 with 5 of the local high schools. The department needs to continue the dialog around aligning the curriculum. As of Spring 2013, Auto and Diesel Technology have offered Credit by Exam to the local participating high schools for the last three semesters. Development of articulation is ongoing.
Santa Rosa	The Automotive Technology Program certificate has been revised for Fall 2012. The total units has remained at 44, but this cannot be maintained for much longer. Technology is advancing so rapidly that our full certificate will need to be expanded to include more computer and electronic skill programs.
Santa Rosa	The Automotive program sees a significant increase in completers for skill certificates for our Automotive students. This has been very successful.

## 6.2b PRPP Editor Feedback - Optional

The department has and will continue to articulate the Introduction to Automotive Technology class with local high schools. We are in the third year of the credit by exam model, and are evaluating the success rate.

The Automotive Technology Department has created a series of skill certificates that align with the Automotive Service Excellence certification. There have been a significant increase in completers as a result, and has proved to be very valuable to the students.

The department is continuing to pursue relationships with automotive manufacturers and to certify with NATEF. This relationship is extremely important given the department's constant need for new and up to date equipment, state of the art training for our faculty, and employment opportunities for our students.

6.3a Annual Unit Plan

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
0001	Santa Rosa	00	00	NATEF Certification for the Automotive program	1. Complete self evaluation 2. Implement necessary changes 3. Have an official inspection team visit and evaluate our program	Spring 2015	1500 - 2000 man hours \$1000 - \$5000 in funds