

# Santa Rosa Junior College

## Program Resource Planning Process

### Fire Technology 2015

#### 1.1a Mission

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The mission of the Department of Public Safety is to provide an education and training environment which fulfills the diverse needs found within the professions involved in public safety. This environment promotes the opportunity for intellectual, social and occupational growth in three major areas:

- 1) A comprehensive pre-employment curriculum leading towards an associate degree and/or transfer to a four year institution.;
- 2) Basic Academy programs for state and federal mandated certificate programs; and
- 3) In service training programs which provide current and professional course offerings reflecting the needs of the professions.

The mission of the Fire Technology Program is twofold:

- 1) To offer the highest level of pre-service and advanced courses recognized by the State Board of Fire Services; and,
- 2). To provide the opportunity for students to receive their Associate of Science Degree and/or a Certificate in Fire Technology which will enhance opportunities for future employment, and advancement in the Fire Service. To this end, the program is committed to recruiting and retaining faculty and staff who are recognized subject matter experts in their fields.

#### 1.1b Mission Alignment

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During the last year the Board of Trustees adopted Policy 1.1 which updated the District's Mission and Values Statements as follows:

*SRJC passionately cultivates learning through the creative, intellectual, physical, social, emotional, aesthetic and ethical development of our diverse community.*

- *We focus on student learning by preparing students for transfer; by providing responsive career and technical education; and by improving students'*

*foundational skills.*

- *We provide a comprehensive range of student development programs and services that support student success and enrich student lives.*
- *We support the economic vitality, social equity and environmental stewardship of our region.*
- *We promote personal and professional growth and cultivate joy at work and in lifelong learning.*
- *We foster critical and reflective civic engagement and thoughtful participation in diverse local and global communities.*
- *We regularly assess, self-reflect, adapt, and continuously improve.*

Some examples that demonstrate the consistency of the Fire Program with this Mission and values are as follows.

- By providing the opportunity to achieve a Degree in Fire Technology, students specifically meet the curriculum necessary to transfer to a four year "2 + 2" Fire Program as is offered by CSU Los Angeles, Long Beach and Sacramento. In addition, through the delivery of a Fire Academy that meets not only State Fire Training (SFT), and new to 2015, International Fire Service Accreditation Congress (IFSAC) requirements, students are provided foundational skills that meet national standards.
- By providing "In-Service" coursework that focuses on allowing students to obtain certificates necessary to promote in the field, we provide an development path that allows them the opportunity to succeed in the fire service.
- That the ethnicity in our programs has grown to equal that of the District, our diversity has grown almost 50% over the last year and slightly over 20% of our graduates are hired demonstrates the vitality and equity of our program. That we have ceased running our academy off-site avoiding travel (and carbon emissions) has supported our efforts to become more environmentally responsible.
- Within our program, continuous learning is strongly supported and as an example our Admin. Assistant is pursuing her Bachelor's Degree while the Director serves on the Statewide Education Advisory Committee (STEAC) and is Vice President of the California Fire Technology Director's Association (CFTDA).
- As a Career Technical Education program that requires the active participation of local fire agencies to make our program successful, civic involvement is critical to this goal. To that end, the Director is a member (and Past President) of the Sonoma County Fire Chief's Association (SCFCA), the current Secretary for the Sonoma Fire Training & Operations (TO's) group and is a member of the county California Incident Command Certification System (CICCS) committee. The program also has a standing report item on the agenda's of the SCFCA as well as TO's meetings. The director also regularly presents and attends civic meetings. As an example, in the last 6 months he has made presentations on the program to the Santa Rosa Rotary club, the Healdsburg Kiwanis Club, attended Sonoma County Operating Engineer's Public Official's night
  - As of May of 2014, all offered coursework has been assessed and where noted, self-improvements implemented. Through a regular feedback process in the fire academy, we are able to conduct a continuous improvement process in that setting that has led to consistently

high remarks from our recruits and students. This was also reinforced in the reaccreditation report prepared by SFT in January 2015.

## 1.1c Description

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The Fire Technology program is taught by one full-time faculty, 38 adjunct faculty and 64 Professional Experts that are coordinated by a full-time Director and supported by a part-time Administrative Assistant and Fire Academy Coordinator. Assistance with logistical needs are provided by two Professional Experts who work as materials handlers on an "as-needed" basis. Courses are offered at Petaluma, Santa Rosa, and the Windsor campuses. Academy courses are offered at the Public Safety Training Center (PSTC) in Windsor.

The Fire Program is divided into three areas; the Fire Certificate/Degree program, the Firefighter I Academies and "In-service" courses for those already in the fire service seeking enhanced skills and training. The certificate and degree programs are centered around 6 "Core" which follow the Fire and Emergency Services Higher Education (FESHE) model developed by the National Fire Academy and adopted by the State Board of Fire Services. These courses are offered mainly at the Petaluma campus but also Santa Rosa and Windsor. "In-service" courses (which also serve as electives) are offered mostly at the PSTC. The Firefighter I Academies are offered in the extended format (Tuesdays and Thursdays 6PM-10PM and Saturdays and Sundays 8-5) in both the fall and spring semesters. In the spring, an "Intensive" academy is also conducted which occurs Monday through Friday, 8-5 over a 10 week period.

To assist students meet the experience component necessary to obtain a Firefighter I Certificate from the State Board of Fire Services, an Internship program has been established with the Work Experience Program. Through a cooperative working relationship with that program, Fire Adjunct Instructors who have an interest in supervising interns work as Adjuncts in that program as well. This provides an opportunity for Academy graduates who are not affiliated with a fire agency to be placed in a local fire department and complete the 1 year experience component required to obtain their Firefighter I Certificate.

The program also works with the Sonoma County Fire Department to deliver a Volunteer Fire Skills Academy and with the California Department of Forestry and Fire Protection (CALFIRE) to deliver a Wildland Firefighter Academy.

For those Fire Technology students who meet specific scholastic and economic criteria, scholarships are available. Those include the Victor Pozzi, the Chief Carl O. Heynen,, the Chief Winnfield Smith, the Brian Fletcher and the Women at Ground Zero Scholarships.

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

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The Fire Technology Program operates from 0800-2200 hours Monday through Friday and Saturday and Sunday 0800-1700. In-service courses are offered during the weekday and on Friday evenings and weekends. Firefighter I Academies are offered in two formats (M-F 0800-1700 hours and Tues, Thurs, 1800-2200 hours and Saturdays and Sundays from 0800-1700. All Fire Academies also include one 48 hour component to replicate the schedule used by fire departments throughout the state.

Semester length "Core" courses are offered both during business hours (0900-1200) and in the evening (1900-2200) to accommodate both full time students and those who work during the day.

Department office/administrative support are available at the PSTC from 0800-1630 hours Monday through Friday. The Director and the Administrative Assistant for Fire Technology have their offices at the PSTC. The Program full-time faculty at Petaluma has designated office hours Monday through Friday. Adjunct Faculty has designated office hours before their assigned classes at Petaluma, Santa Rosa and the PSTC.

## 1.2 Program/Unit Context and Environmental Scan

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From a Program Context and Environmental Scan perspective, there are several trends that have emerged over the last few years that have impacted our program. They are the alignment process that is occurring at State Fire Training (SFT) and the expanded use of partnerships with local fire agencies.

As a Accredited regional Training Program (ARTP) through SFT, the program is required to adhere to the policies and curriculum developed by that institution. Accordingly, the Firefighter I Academy (FFI) and the vast majority of the "In-Service" courses we offer are those developed by the California Fire Service Training & Education System (CFSTES) under the auspices of SFT. Most of these courses serve a specific educational path for allow fire service personal to obtain certification as a Company Officer, Fire Inspector and Chief Officer to name but a few. Over the last several years, the demand for these courses has increased significantly. The reasons for this are twofold.

The first is due to a major shift being implemented at SFT to align these paths with national standards. As the courses that create these new paths are adopted by SFT, it has also triggered a transition period to retire the existing ones. For those fire personnel who are in a current path, it has become necessary

for them to complete the required courses before they are retired or risk having to start the path again using the new curriculum.

It should also be noted that as these alignment efforts create new courses, the continued success of our program will rely on our ability to up-date our curriculum to stay current. At this time there is a concerted effort to write and obtain the approvals for the eight courses required for a SFT *Company Officer* certificate and I am pleased to share that half of these have been written and the remainder are well under way. These efforts will not only enhance the quality of our program, but keep it aligned with SFT policies and procedures. This will be especially relevant in regards to the FFI academy which will be discussed in more detail below.

The second is due to a surge of retirements occurring in the fire service. This has created a corresponding increase of promotional opportunities and since most agencies require candidates to possess applicable SFT certifications to be eligible for promotional tests (i.e. Company Officer Certification for Fire Captain), the demand for these classes has increased. It is for these reasons that we have scheduled most of the courses required for the SFT Company Officer certification to be available to students within a single calendar year.

Partnerships with local agencies have always played an important role in the delivery of the fire program. Three years ago, the partnership we enjoyed for years with CALFIRE was renewed in order to deliver the wildland component of the Firefighter I academy. Since that time, this arrangement has proven to be so successful that the Sonoma County Fire Chief's inquired if this section of the academy could be opened to outside students. To that end, the curriculum was developed and approved as a "stand alone" course (Fire 206) was created. Upon successful completion, students receive a CALFIRE "Basic Firefighter Certificate" and become eligible for employment as Seasonal Firefighters. Since its inception, an average of 24% of the students have received jobs as Seasonal Firefighters making it one of the most successful offerings. It is also interesting to note that many of the students come from other college fire programs who do not offer such a course.

Last fall began the second year offering of the Volunteer Fire Skills program which was delivered through a contract with the Sonoma County Fire Department. The companion course is being held in the spring with this rotation continuing each year. Because a student must be a volunteer with a fire agency to attend, they are eligible for scholarships through the California Firefighter's Association (CSFA). With most also receiving stipends for their volunteer response activities engaged in upon completion, the program serves as an effective path to part-time employment.

As mentioned above, of all the alignment efforts being undertaken by SFT, none will have more of an impact on our program than the changes that are occurring to the FFI curriculum. This can be attributed to two somewhat related forces that have come into play.

The first are the physical changes to the FFI curriculum. While the COR has been written, approved and training is occurring with staff to begin delivery in fall 2015, it has become quite a challenge to obtain the props necessary to conduct the mandatory skills tests which will be addressed in more detail later.

However, of more importance are the efforts of SFT to obtain reciprocity for FFI certification with two outside accreditation institutions: the International Fire Service Accreditation Congress (IFSAC) and the National Board on Fire Service Professional Qualifications (Pro Board). As the two organizations that accredit fire programs in most of the other 49 states, SFT has long recognized the benefits of aligning

their certificate programs with IFSAC & Pro Board. Some of these include; transportability for the students, expanding employment opportunities to a national level and promoting student success.

Unfortunately, because of the rigorous examination process that will have to be followed to meet IFSAC and Pro Board requirements, it is anticipated the labor costs for testing in FFI academy will rise (currently, there is no SFT skills testing process for FFI except that which has been developed internally). For example, to complete IFSAC/Pro Board certification testing, in addition to a written exam, students must successfully complete 17 skills tests over a three day period (we currently complete all our testing in one day period). In addition, IFSAC/Pro Board require a minimum of 9 evaluators to implement their testing process (we currently use 6). Finally, because they both prohibit the instructor for a particular skill to also act as the evaluator for that skill, it will be necessary to expand our number of Professional Experts. While it would be premature to identify the exact costs associated with these changes, it is evident they will increase.

In addition to the costs to the college, because both IFSAC and Pro Board have certification fees, the costs to the student can expect to increase an additional \$130-\$150 (including a third party vendor SFT has contracted with to conduct the written on-line testing).

It should however, be noted that with these changes, there is a significant benefit. As reciprocity will make it more difficult for smaller agencies to conduct FFI certification testing, it creates an opportunity for SRJC to offer the testing (and preparation component) as a "stand alone" class and become a regional testing center open to local fire agencies (for a fee) which presents a significant marketing opportunity. While much of the activity surrounding the reciprocity continues, the Fire program intends to stay actively involved (including observing the BETA test) to make the transition as seamless as possible.

The last item relative to this section involves the re-accreditation of our program. As an ARTP, the program is accredited by SFT and as the first step in the reaccreditation process, a Self-Study document was completed and submitted to SFT with the endorsements of the Marin and Sonoma County Training Officer and the Marin and Sonoma County Fire Chief's Associations over a year ago. On November 12 of last year, SFT staff and representatives of other Community Colleges conducted a site visit of the PSTC. I am please to report the result was a positive report from the site team recommending reaccreditation and on January 16, 2015, the Statewide Education Advisory Committee (STEAC) voted unanimously to grant reaccreditation. The last step in this process is for an affirmative vote from the State Board of Fire Services that is expected to occur on May 22, 2015.

We continue to maintain a good relationship with local fire agencies (employers) to run our programs. In addition to using them as an integral part of our Fire Academies, 15 agencies participate in our Internship program where academy graduates serve terms with local departments to provide supplemental staffing (also see below).

## 2.1a Budget Needs

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The budget of the Fire Technology program is broken down into the three Categories; the 2000, 4000 and 5000. For the purposes of this section, only the 4000 and 5000 categories will be discussed here.

### **Budget Category 4000**

The 4000 category covers the costs of instructional supplies and is broken down into the following accounts: 4110-textbooks, 4111-textbooks (fee based), 4390-other supplies, 4391 instructional supplies (fee based), 4510-graphic arts, 4511-graphic arts (fee based).

In this category, the account that is central to the operation of the academy and is most utilized is the 4390. Uses for this account include propane to operate our car fire prop, replacement panels for our burn room and wood products used for the ventilation and forcible entry units as well as the live fire exercise. It is anticipated that the expenditures in this category will increase during the next fiscal year. This is the result of a State Fire Training mandate to implement the 2013 Firefighter I (FFI) curriculum that increases the amount of existing manipulative training 75% as well as the introduction of new skills requiring new props and materials. As we have begun to introduce some of these skills this semester, we have already experienced some of this increase. However, by the use of more competitive vendors, to date we have managed to stay within our budget of \$52,995. However, because of the unknown costs of implementing all of the new skills testing \$57,995 (\$5,000 increase) is being requested for the 2015-16 F/Y

### **Budget Category 5000**

The 5000 category covers the costs of guest lectures, consultants, equipment maintenance, leases and rentals and is broken into the following accounts: 5110-lecturers/speakers/etc., 5190-other consultant services, 5191-consultant services (fee based), 5630-equipment rental/leases, 5640-facilities rental/leases and 5659-other equipment repair. In this category, the accounts that are central to the operation of the academy are the 5190 and the 5659 which covers costs such as vehicles used for auto extrication, refilling of extinguishers for fire extinguisher training, ladder testing, hydrostatic testing of our SCBA bottles, air testing and maintenance for our compressor, maintenance for our power tools and permit fees for our live burn exercises. As with the 4390 account, expenditures are also expected to increase as we implement the new FFI curriculum.

Due to an unexpected increase of \$75 for each car used in our extrication unit (x 21 cars), an adjustment of \$2500 was necessary for the 5190 account. For the upcoming year, an additional cost associated with the implementation of the evaluation software program called EVALs.NET for our skills testing, an annual license user fee of approximately \$500 is anticipated. To that end, \$5250 (\$600 increase) is requested for the 2015-16 F/Y.

For the 5659 account expenditures are also expected to increase due to the new FFI curriculum. This will also be attributed to catching up on some deferred maintenance of SCBA's and our fire engines as well as repairs for our power equipment (now that their use is integral to the curriculum). Because it was necessary to begin addressing some of these issues this year, our expenditures exceeded budgeted amounts by approximately \$4,000. To plan for these increases, \$10,600 (a \$4000 increase) is requested for the 2015/16 FY.

For the 5210 category, travel funding of \$1,000 is requested to attend quarterly meetings of the California Fire Technology Director's Association. This will allow me to remain current with changes in State and FESHE curriculum and the SFT accreditation requirements.

From an expenditure perspective, we have been able to generate significant savings in two areas. One is in the 5640 category which covers the cost of the lease for the Santa Rosa Fire Department training facility for FFI Academies. Due to the improvements that have been made at the PSTC, we have found it no longer necessary to lease their facility which has resulted in a savings of close to \$25,000. Providing the remaining PSTC projects are completed and those props required for the new certification testing are obtained, it will make the program "facilities self-sufficient" and avoid us from having to enter into any future lease contracts.

The second involves the contract costs we have historically incurred with Cal Fire for the delivery of the Wildland unit in the FFI Academy and Fire 206. Because of an internal review occurring within the State, they have suspended billing for the delivery of instruction. While this has resulted in annual savings of \$3,000 for the last two years, we are currently working with CalFire and Purchasing on a new contract template and it is anticipated to have a contract in place for the 2015/16 FY. To that end, \$4,500 is requested to cover this cost.

It should be noted that the program continues to aggressively seek donations and grants to offset the extensive equipment needs for the Fire I Academies. We have been fortunate to have many Fire Agencies donate fire apparatus and equipment. For example, last semester, Geyserville Fire District donated 1500 feet of 2-1/2" hose and this semester, Southern marin Fire District donated 2000 feet of 1-3/4" hose. To have purchased these would of been in excess of \$20,000.

I would end by speaking to the new FFI certification testing process and its financial implications for the program. As mentioned above, we have already incurred some costs as we have begun implementing some of the skills. While we have been able to absorb most of these costs to date, it is anticipated some will require significant improvement to our facilities. For example, to install an interior gas fire prop to conduct the interior fire attack skill test in our burn room, the bid we received was \$138,500. Given the site constraints that are experienced when live burn are conducted and their adverse impact to EVOC and other activities, I would strongly recommend pursuing a new structure for burning. Doing so would avoid the higher costs associated with retrofitting such a prop and avoid disruption to other programs. This will be addressed in more detail in sections 2.5 a & b.

## 2.1b Budget Requests

Rank	Location	SP	M	Amount	Brief Rationale
0001	ALL	00	00	\$71,192.00	Professional Experts/Instructional Assistants, Fire Academy Coordinator, Materials Handlers
0001	ALL	00	00	\$84,935.00	Textbooks and other instructional supplies.
0001	ALL	00	00	\$39,500.00	Equipment maintenance/repairs, rentals, lectures, speakers, other equipment, travel

## 2.2a Current Classified Positions

Position	Hr/Wk	Mo/Yr	Job Duties
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Administrative Assistant III	24.00	12.00	Provides detailed administrative and clerical support for Director/chair. Manages complex projects as assigned such as contributing to the budget development process, monitoring budgets and faculty load monitoring. Prepares curriculum outlines and documents.  Administrative Assistant III provides administrative support for payroll utilizing .40 FTE.
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## 2.2b Current Management/Confidential Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Director of Fire Technology	50.00	12.00	Under the direction of the Dean of the Public Safety Training Center, is responsible for coordinating the Certificate/Degree course work at the Petaluma and Santa Rosa campuses and entry level/in-service programs at the PSTC Windsor. Additionally, the Director manages and supervises fire academies at the Santa Rosa Fire Department Training Tower and is responsible for curriculum development and continued currency of courses in the Fire Technology program.

## 2.2c Current STNC/Student Worker Positions

Position	Hr/Wk	Mo/Yr	Job Duties
64 Evaluators (Professional Experts)	45.90	12.00	Responsible for explanation, demonstration, supervision, evaluation and documentation of discipline specific subject matter and related skills under the direct supervision of lead instructor.
7 Fire Recruit Training Officers	7.00	10.00	Counsels recruits regarding professional matters; supervises and monitors recruit discipline; supervises other Professional Experts as needed.
Fire Academy Coordinator	18.00	9.00	Provide the scheduling, oversight, discipline and physical resources necessary to operate the Fire Academy.
2 P/T Instructional Assistant III	20.00	12.00	Maintain academy equipment, refill air bottles, deliver instructional supplies, re-build instructional props, repair hose and other equipment, conduct skills testing, etc.

## 2.2d Adequacy and Effectiveness of Staffing

### 2.2d Adequacy and Effectiveness of Staffing

Currently, the Fire Technology Program consists of a Director, a Part Time Administrative Assistant (.60FTE), a Full-time Instructor, a Part Time Fire Academy Coordinator, 40 Adjunct Faculty, 7 Recruit Training Officers and approximately 64 Professional Experts ( 2 of whom also serve as Materials handlers). With this staffing, we operate 3 Fire Academies and average 27 course sections each semester.

Add section here on how our ratios compare with the district wide

While the program as a whole has the staffing necessary to deliver instruction, the Fire Academies are not staffed adequately for the size and scope of our Program. This is due to several reasons; (1) the operation of two concurrent academies in the spring semester, (2) the adoption of a new curriculum and certification testing process that will greatly increase the hours; and, (3) the lack of a F/T Administrative Assistant and Academy Coordinator.

For our AA, it is a significant challenge for her to conduct her duties given .40 of her time is dedicated to performing payroll for the PSTC. This frequently results in the Program Director addressing clerical functions that are better suited to her skill set.

Providing assistance for our Fire Academy Coordinator would greatly help us manage our program, especially in light of the changes that have occurred to the curriculum and the certification testing process that we will be required to administer as an Accredited Regional Training Program (ARTP) Although we have made enormous strides with a Coordinator funded through the 2333 (Prof. Expert) account, it has stressed the funds available in that account. To that end, two half-time Instructional Assistant III positions have been requested and are working their way through the approvals process at this time. This has advantages over a single F/T in that it creates greater depth in staffing, provides the ability to draw on a second person when labor intensive activities (such as testing) occur and provides a greater pool of applicants to draw from since most applicants are PERS retirees who are ineligible to work in this classification full time.

It is also recommended that the Professional Experts that serve as Materials Handlers be increased to .50 FTE to realistically meet the workload created by the academies (reflected in the Instruction Assistant request in 2.2e).

It should be noted that with the retirement of our one F/T instructor in 2013, recruitment and hiring has been completed and this spring represents her first full semester of instruction.

## 2.2e Classified, STNC, Management Staffing Requests

Rank	Location	SP	M	Current Title	Proposed Title	Type
0001	Windsor	00	00	N/A	Lab Assistant III	Classified

## 2.3a Current Contract Faculty Positions

Position	Description
FT Fire Tech	Contract Faculty - The program budgeted one, full-time faculty member. Recruitment was completed in 2014 and the position is currently working at 100% load.

2.3b Full-Time and Part-Time Ratios

Discipline	FTEF Reg	% Reg Load	FTEF Adj	% Adj Load	Description
Fire Technology	1.0000	100.0000	3.1300	313.0000	F

## 2.3c Faculty Within Retirement Range

### 2.3c Faculty within Retirement Range

After a rather lengthy transition period which saw the retirement in 2011 of 3 long serving Adjunct Faculty (12, 25 & 28 years respectively), a 27 year Adjunct Faculty in 2012 and our one F/T Faculty in 2013, we have reached a period of staffing stability in the program. This leaves the Program Director as the only person in the program within retirement age.

Although not a faculty position, it is worth noting that in 2014 the long time program Administrative Assistant (8 years) retired and a replacement has been hired.

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

### 2.3d Analysis of Faculty Staffing Needs

While there are an abundance of fire personnel in the county, it is becoming more difficult to recruit qualified personnel for the program. This is mainly a result of the new requirements being implemented by State Fire Training (SFT) for those staff who conduct skills testing in the Firefighter I Academy. At a minimum, all *existing* staff will need to attend between 20 and 40 hours of additional SFT training to continue to work in the academy. This will not only make it difficult to keep existing faculty, but also hire new personnel.

The Program interviews annually to maintain our adjunct faculty pool. The one exception was in 2014 when our efforts were directed to hiring and interviewing for our F/T faculty position. However, our greatest challenge remains attracting qualified On-line instructors. With this segment of instructions representing the largest areas of growth, there has been a concerted effort to seek qualified on-line developers/instructors. Over the last four years, five On-line instructors have been hired only to have all but one resign once they found how laborious the approval's process is.

While we usually can provide an adequate pool of Adjuncts and Professional Experts, a growing challenge we face is the availability of staff during fire season. As drought conditions persist and fire season extends into late November and early December, the availability of instructors as well "In Service" students will diminish. This will obviously make it very challenging to not only offer, but fill many of our fall courses. After having to cancel several "In-Service" classes last fall due to the long fire season and anticipating another extended season this year, to avoid a repeat, we are purposely scaling back our fall "In-Service" offerings for 2015.

On a final note, Depending on the severity of the fire season, it may also become problematic to operate the fire academy in the fall which would be a "game changer" for the program and the way we operate.

### 2.3e Faculty Staffing Requests

Rank	Location	SP	M	Discipline	SLO Assessment Rationale
0001	ALL	00	00		

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

### 2.4b Rational for Instructional Equipment

The majority of the instructional equipment used in the program is dedicated for use in the Firefighter I (FFI) academy. With the inclusion of the certification testing process as mandated by our State Fire Training (SFT) accreditation comes a need for new equipment and instructional props that will be required to administer the testing process. Please refer to the prioritized list below.

**1. Instructor IPAD's to Evaluate Skills Testing:** As part of the skills portion of the certification testing process, students will need to demonstrate proficiency in 63 skills. Central to their success will be having the capability to thoroughly evaluate the skills as they are performed including providing video so if remediation is necessary, the student can review their performance and see where improvement is needed. Another key component to this process is providing an on-line platform where students can view at any time, videos of the skills they will be required to perform in order to be successful. One system that is in use at several other college fire academy programs is an on-line based system called EVALS.NET. Aside of some facilities improvement to enhance WiFi at the PSTC, the costs to implement it are limited to an annual license fee, and some IPAD's and miscellaneous equipment that would be used by the evaluators to access the program and record the students performance.

**2. Interior Fire Gas Prop:** Among the 63 skills the students will be required to demonstrate at the end of the academy is the ability conducting a interior structure fire attack (SFT skill 5-10.1). For our average class size, this will require 32 fires to be set and extinguished on our test days. Because our burn room currently does not possess gas fired props, wood and hay will need to be used for each burn. This is problematic for several reasons. First, an enormous amount of fuel will be need resulting in very high materials costs. In addition, the time needed to build each fire and clean it up after every burn will be significant resulting in a much higher labor costs. Lastly, because it will significant increase the amount of smoke and particulate matter, we will need to obtain approval from the Bay Area Air Pollution Control District and it is unknow if they will allow this to occur.

The solution to this problem is to install a gas fired prop that can easily be extinguished and re-ignited without any delay. To that end, a "Turn key" quote to have such a prop installed has been obtained. It is worth noting that there is a natural gas line terminating outside the burn room which suggests it was the intention of the District to have such a prop installed when the facility was built in 2003.

**3. Student IPADs/Laptops for Administering On-line Certification Tests:** Under the new FFI certification testing process, we will be required to administer our written exams on-line using a SFT approved vendor. Although not currently mandated, SFT has also encouraged the use of on-line format for the delivery of quizzes. Because the fire program does not currently have the hardware to administer these tests, it will be essential to obtain them in the near future. In the meetings we have had with the Instructional Computing Department, they have suggested the use

of IPAD's due to their successful track record with other disciplines. They also suggested including a locking charging cart for their storage and to minimize the risk of theft.

**4. Fire Extinguisher Burn Pan Fire Trainer:** Among the 63 skills the students will be required to demonstrate at the end of the academy, one requires them to select and operate a portable fire extinguisher as described in Skill sheet 5-3.1. Because the skill requires the use of a 16 square foot live fire burn pan, for our average class size, this will require setting 32 fires involving flammable liquids. As mentioned in 1. above, this will significantly increase our materials and labor costs. It will also increase the amount of pollutants which will require approval from the Bay Area Air Pollution Control District and it is unknown if they will allow this to occur.

As with 2 above, the solution is to install a gas fired prop that can easily be extinguished and re-ignited without any delay. To that end, a "Turn key" quote to have such a prop installed has been obtained.

**5. Portable Water Tank:** Among the 63 skills the students will be responsible for, one Deploy a Portable Tank to Prepare for Drafting Operations (Skill 5-4.2). Because we do not possess one in our inventory, it will be necessary to obtain a quote which is reflected in section 2.4c.

**6. Misc Academy Tools and equipment:** As we have begun to implement some of the skills test associated with the new curriculum, we have found ourselves short on a variety of equipment or instructional aids. These include the following items:

- 3 Salvage Covers
- 3 2-1/2" – 1-1/2" Gated Wyes
- 4 Belt weather Kits
- 4 Kestrel weather devices
- 2 Hose Bridges
- 1 Stihl Circular Saw

At our Advisory meeting on April 30, 2015 this list of items were presented to the committee and unanimous vote was made to support the purchase of these items through grants or college funds.

Given the accelerated use our materials receive in the instructional setting, there is a constant need to replace or up-grade our equipment not only for wear, but to meet updated industry NFPA and OSHA safety requirements. Our Fire Academy is labor intensive and requires a variety of equipment necessary to conduct the manipulative skills. It is not unusual for some of our equipment to need replacement after only two semesters of use.

Historically, we have been very fortunate in obtaining equipment donations that have enhanced our program and minimized our equipment costs. For example, in the last year we received over a

1000 feet of 2-1/2" hose from Geyserville Fire, two smoke ejectors and a floto-pump from Mill Valley fire and gas meters from PG & E.



## 2.4c Instructional Equipment and Software Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Windsor	01	01	IPAD's & Misc. Equipment	8	\$934.00	\$7,472.00	R.Collins	N/A	R.Collins
0002	Windsor	01	01	Interior Gas Fire Prop	1	\$138,975.00	\$138,975.00	R.Collins	N/A	R.Collins
0003	Windsor	00	01	IPADS and Charging Cart for Student Test and Exam	40	\$706.00	\$28,240.00	Randy Collins	706 PSTC	Randy Collins
0004	Windsor	01	01	Fire extinguisher Burn pan	1	\$25,794.00	\$25,794.00	R.Collins	N/A	R.Collins
0005	Windsor	00	00	Portable Water Tank	1	\$0.00	\$0.00	R. Collins	N/A	R. Collins
0006	Windsor	01	01	Misc Equip (Saw, Salvage, Weather kits, etc)	4	\$1,000.00	\$4,000.00	R. Collins	N/A	R. Collins

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

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Windsor	01	00	IPADs & Charging Cart for Sudent testing	40	\$704.47	\$28,178.80	R. Collins	PSTC	R. Collins
0001	Windsor	01	01	Extend Electrical Curcuit for Interior Fire Prop	1	\$500.00	\$500.00	R. Collins	PSTC	R. Collins

## 2.5a Minor Facilities Requests

Rank	Location	SP	M	Time Frame	Building	Room Number	Est. Cost	Description
0001	Windsor	01	01	Urgent	PSTC	Tower Burn Room	\$138,000.00	Interior Gas Fired Prop to conduct Interior Fire Attack skills for certification testing
0002	Windsor	01	01	1 Year	PSTC	Off EVOC Course	\$10,000.00	Build a Cinder block inclosure and provide a burn pan to conduct Fire Extinguisher Skills testing
0003	Windsor	01	01	1 Year	PSTC	Fire Tower	\$12,000.00	Install a fire prinkler system in the tower to conduct the skill of controlling water from a fire sprinkler skill
0004	Windsor	01	01	1 Year	PSTC	Storage Containers	\$3,000.00	Construct metal racks and cover on back of containers to store ladders

## 2.5b Analysis of Existing Facilities

### 2.5b Analysis of Existing Facilities

In our analysis of the existing facilities, the greatest need that has been identified is to make those site improvements necessary to conduct all Firefighter I Academies at the PSTC.

Thanks to the support of the Board Facilities Committee and the Facilities /Operations Department (Fac/Ops), improvements are steadily occurring at the PSTC which will allow this to occur. For example, since 2012 the following facilities requests made in our PRPP have been accomplished. They include:

- Installation of a 500 gallon propane tank to operate our car fire prop.
- Installation of a 40 foot shipping container to store instructional equipment.
- Delivery of a Bauer Air Compressor to fill SCBA bottles.
- An Auto Extrication Pad and Storage Shed.
- The installation of a Carport to store our fire engines, hose and misc. equipment.
- A student shade structure to meet the Heat Illness Prevention requirements of T-8, sec. 3395d (under construction at this time).
- Board approval to build a Ventilation Roof Prop that has been plan checked and approved by the office of the State Architect (DSA).

With the exception of the last bulleted item, this has allowed us to move all units of the fire academy (except ventilation) from the Santa Rosa Fire Department Training Tower (SRFDTT) to the PSTC. Subsequently, for the first time in the history of the academy, we have avoided having to lease a facility from the Santa Rosa Fire Department. While it was our hope that these improvements would satisfy our facility needs, we have learned that with the changes to the new Firefighter I curriculum and the certification testing process, a number of new instructional aids will be necessary. These include:

- An interior gas fired prop to allow students to perform an interior structure fire attack skill (5-3.10)
- Installing a fire sprinkler system in the PSTC fire tower to allow students to perform the skill of controlling water from a sprinkler system (5-13.3)
- Installing a propane burn pan (to our existing 500 gallon propane tank) to allow students to perform the skill of extinguishing a fire with a portable extinguisher (5-3.1)
- Installing metal racks and awning on the rear of the shipping containers to store the ladders used by the program off of the ground and out of the elements.

As these are necessary to meet the training and testing (a condition of our SFT Accreditation), it will be absolutely necessary to obtain them. This has taken on a new sense of urgency and was confirmed when a request was made to SFT to allow some flexibility for those props that require significant investment and may take some time to purchase. In their response SFT succinctly replied "training providers must have access to an *appropriate* burn room in order to fully deliver the Fire Fighter I (2013) curriculum".

As these aids are added to the Fire Academy, it will almost certainly lead to more conflicts with other PSTC programs as the use of the facilities by the Fire academy becomes more intensive. One option that may alleviate this is the availability of the 20 acre Pozzi parcel that borders the PSTC. This presents a one time opportunity to remedy the site constraints we are experiencing. Given Mr. Pozzi's strong support of the Fire Program, a facility that honors his legacy would indeed be appropriate.

In addition to the space needed to conduct our manipulative training, it has become apparent that there is an increased demand for classroom space at the PSTC. This limitation has only become more acute as the popularity of our programs has grown and with the introduction of new courses such as the Volunteer Fire Skills Program. Because this need has already been articulated in the *Public Safety Training Center Advanced Laboratory and Office Complex* report dated May, 2005, the reader is encouraged to reference that document for additional information relative to the need for classroom facilities.

## 3.1 Develop Financial Resources

### 3.1 Develop Financial Resources

It has been a continuing goal within the Fire program to pursue a variety of resources (both funds and equipment) that are consistent with district goals. This has included some of the following practices:

- Evaluating the number of Professional Experts needed to safely assist with delivery of manipulative skills for the fire academy.
- Implementing facility improvements at the PSTC to operate the academy at that site and eliminate the cost of leasing the Santa Rosa Fire Training Tower (also lower labor costs).
- Aggressively pursue grant opportunities to obtain the instructional equipment necessary to deliver instruction. This includes over \$200,000 in CETA grants and \$35,000 in IELM funds over the last four years.
- Enter into Instruction Service Agreements that share instructor resources and reduce the cost of instruction to the District
- Allow fire agencies to use our facilities in return for assisting with instruction and providing resources on equipment dependent scenario days
- Actively pursuing donated equipment to minimize our equipment budget.

While donations far remain the largest source of our equipment, in the future we will continue to rely on Perkins (CETA) funding to purchase that we cannot obtain through donations. We will also continue to pursue other potential opportunities such as the *Institutional Education and Library Materials (IELM)* grants.

## 3.2 Serve our Diverse Communities

### 3.2 Serving our Diverse Communities

The program continuously is evaluating methods to better serve or diverse communities. One of the more inclusive ways to accomplish this is by having faculty that reflects this. To that end, I feel we have had some success.

For example, last year we completed a recruitment for our one F/T faculty. In an effort to be sensitive to the diverse needs of our students, one of the five criteria established in our application selection rubric is diversity. The outcome was the recruitment and hiring of the program's first full time female instructor.

Among the best practices used to attract candidates for this position included advertising our Job Announcement (JA) on the following websites (HR Dept. Fall 2013 Recruiting Sources doc):

- AsiansinHigherEd.com
- BlacksInHigherEd.com
- HispanicsInHigherEd.com
- LGBTinHigherEd.com, and
- California Community Colleges Faculty and Staff Diversity Registry

The program has also been very successful recruiting female Adjunct instructors which now comprise 20% of our adjunct staff (as compared to representing only 3% of F/T firefighters in Sonoma County).

The overall break down of the background of our staff is as follows:

We presently (Spring 2015) have 38 Fire Technology Instructors employed:

1 FT Instructor – (Female)

30 Male Adjunct Instructors – 26 White, 2 Latinos, 1 Asian, 1 Pacific Islander

Female Adjunct Instructors - 8 White

The ages of our Adjuncts faculty ages range from the 20's to the early 60's.

It is also worth noting that in 2013, a concerted effort was made to promote female enrollment in the program by having two female Adjuncts attend Career Fairs at local high schools including Elsie Allen High, Piner High School, Bolinas High School, Roseland Middle School and Sonoma State University.

### 3.3 Cultivate a Healthy Organization

### 3.3 Cultivate a Healthy Organization

One of the most effective ways to develop an environment based on collegiality is to create a fun working environment. Some ways this has been accomplished is by the following:

- Creating a "Song of the Day" to generate a light environment and promote nostalgia.
- Having "Hot Dog" days where we have picnics with Classified and Managers
- Having trivia contests twice a year.

Recruiting and hiring of the best candidates has always been a goal of the program. With the vast majority of instruction being delivered by Adjuncts, most of our hires come from local fire agencies whom we are well known because of the intimate nature of fire services in this county. This allows us to identify and hire candidates who are recognized experts in their respective fields which helps maintain quality instructional delivery.

Student Health and Wellness is promoted through three of our courses. In Fire 208, 12 hours are spent on physical training and the importance of health in a firefighting career. This is followed by the Fire Academy where 28 hours of physical training occurs including a PT midterm and final which must be passed in order to graduate.

To obtain a degree or certificate, students must complete Fire 78 (Fire and Emergency Services Safety and Survival) which includes a component on Health and Wellness .

In our efforts to increase safety planning and overall emergency preparedness, over the past year, the program has done the following:

- Conducted fire extinguisher training
- Participated in the District's "Great Shakeout" exercise in Fall 2014
- Attended ATC-20 Training sponsored by the District February 25, 2015
- Directed new staff to the FEMA website to take the I-100 & I-700 courses
- Updated PSTC emergency checklists for Earthquakes.

Once all staff have taken the FEMA training, a Standardized Emergency Management System (SEMS) course will be conducted to satisfy all Federal and State emergency preparedness training requirements.

### 3.4 Safety and Emergency Preparedness

#### 3.4 Safety and Emergency Preparedness

A number of activities have been occurring with the fire program in this regard over the last few years.

Injury, Illness and Prevention Program (IIPP): In response to a weakness we identified with the *Heat Illness Plan* provision of the IIPP, in conjunction with Fac/Ops, we recently has a shade structure erected (T-8, 3395 (d)1).

In our efforts to increase safety planning and overall emergency preparedness, over the past year, we have also accomplished the following:

- Conducted fire extinguisher training
- Participated in the District's "Great Shakeout" exercise in Fall 2014
- Attended ATC-20 Training sponsored by the District February 25, 2015
- Directed new staff to the FEMA website to take the I-100 & I-700 courses
- Updated PSTC emergency checklists for Earthquakes.

We are also currently developing an "Active Shooter" checklist as well.

Once all staff have taken the FEMA training, a Standardized Emergency Management System (SEMS) course will be conducted to satisfy all Federal and State emergency preparedness training requirement.s

The Building coordinators for the PSTC are Tim Bell as primary and Randy Collins as (alternate). This includes all buildings 100-900 at the PSTC.

## 3.5 Establish a Culture of Sustainability

### 3.5 Sustainable Practices

Since August of 2010, the following sustainable practices have been implemented in the program:

- All print materials surplus in the program are recycled when possible. Assignments, handouts, tests and other documents have been reformatted and printed two sided to use less paper.
- Beginning in Spring of 2014, all of the student materials for our "In-Service" State Fire Training Classes (SFT) have become available electronically. This has allowed us to have the students download them to their laptops, I-pads or other electronic readers (students still have the option of printing a hard copy). The classes account for between 30 and 40% of our offerings each semester.
- With all academy classes now conducted at the PSTC, we have eliminated trips to the Santa Rosa Fire Department Training Tower (16 mile round trip).
- The program is also in the process of transitioning from composite to aluminum SCBA air bottles that have an indefinite service life as opposed to the composite cylinders currently used that are obsolete after 15 years and cannot be recycled (the only reason composite bottles are used in the first place is because they have been donated).

- The program is also making use of 3-5 gallon water coolers for student hydration to minimize the use of bottled water (for a summary of the problems go to: <http://greenliving.nationalgeographic.com/water-bottle-pollution-2947.html>)
- Beginning in fall of 2015, the academy will be moving to a paper free evaluation process known as EVALS.NET

For future practices, the program is examining the possibility of implementing a computerized (paperless) testing system similar to what is used in the Police Academy and EMC program. However, it is hindered by the operation of the fire academy at a remote location which makes implementing such a program unlikely. This represents another benefit of moving the academy to the PSTC and why this project remains a high priority.

## 4.1a Course Student Learning Outcomes Assessment

### 4.1a Course Level Student Learning Outcomes (SLOs)

At this time, all courses possess SLOs. In addition, with the exception of Fire 107B (which is being assessed this semester), all courses that are offered have had their SLO's assessed.

It should be noted that one of the benefits of completing our SLO assessments was to help prepare our program for our accreditation with State Fire Training. This occurred last November and led to a unanimous positive vote by the Statewide Education Advisory Committee to re-accredit the program for another 5 years.

Another positive outcome of our assessments was to discover that in several classes we discovered students already possessed a cognitive understanding of many of the objectives covered in the class gained through either their job environments or by having the material covered in another related class. With this background, we now query each class as to their background and if we find certain material already covered (as found in the COR), we alter the schedule to devote more time on other topics that are found to challenge the students.

In a similar light, this has also identified a redundancy in the prerequisite relationship with some of our courses, in particular those developed by State Fire Training (known as California Fire Service Training and Education System or CFSTES courses). Coincidentally, as of this writing, SFT is in the midst of an alignment process where they are being re-written to be consistent with National Standards which will correct this.

## 4.1b Program Student Learning Outcomes Assessment

### 4.1b Program Level Student Learning Outcomes (SLOs)

Having completed both our course and program SLO's and their assessments, over the last two years, we will plan to reassess our programs again in 2018. Whereas a "bottom up" approach is favored using

the assessment of individual courses, this process will really be an on-going one as we continually reassess these courses.

#### 4.1c Student Learning Outcomes Reporting

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	Fire 107A - Vol Fire Skills	Fall 2014	Fall 2014	N/A
Course	Fire 107B Ad Vol Fire Skills	Spring 2015	Spring 2015	N/A
Course	Fire 200.1- Training Inst. 1A	Spring 2014	Spring 2014	N/A
Course	Fire 200.2- Training Inst. 1B	Spring 2014	Spring 2014	N/A
Course	Fire 200.3 - Training Inst. 1C	Fall 2015	N/A	N/A
Course	Fire 201 Fire Prev for Co Offi	Fall 2013	Fall 2013	Spring 2014
Course	Fire 202 - Ethical Leadership	Summer 2015	N/A	N/A
Course	Fire 203 - Fire Management	Fall 2013	Fall 2013	N/A
Course	Fire 204.A- Fire Command 1A	Spring 2013	Fall 2013	Spring 2014
Course	Fire 204.B- Fire Command 1B	Fall 2013	Fall 2013	Spring 2014
Course	Fire 204.C - Fire Command 1C	Fall 2013	Fall 2013	Spring 2014
Course	Fire 206- Wildland Fire Acad	Spring 2014	Spring 2014	N/A
Course	Fire 208 - Intro to FFI Acad	Spring 2014	Summer 2014	N/A
Course	Fire 208.1 - FFI Academy	Spring 2013	Spring 2013	Fall 2013
Course	Fire 209 Investigation 1A	Spring 2014	Spring 2014	N/A
Course	Fire 212 - Rescue Systems	N/A	N/A	N/A
Course	Fire 241 - Driver Operator 1A	Spring 2014	Spring 2014	N/A
Course	Fire 258 - Driver Operator 1B	Spring 2014	Spring 2014	N/A
Course	Fire 259 ICS 200	N/A	N/A	N/A
Course	Fire 56 - Fire Hydraulics	N/A	N/A	N/A
Course	Fire 61 - Fire Investigation	Spring 2014	Spring 2014	N/A
Course	Fire 71 - Fire Protection Org	Spring 2013	Spring 2013	Fall 2014
Course	Fire 72 - Fire Behavior	Spring 2013	Fall 2013	Spring 2014
Course	Fire 73 - Fire Prevention Tech	Spring 2014	Spring 2014	N/A
Course	Fire 74 - Fire Prot Sys& Equip	Spring 2013	Spring 2013	Fall 2013
Course	Fire 76 - Building Constructio	Spring 2013	Spring 2013	Fall 2013
Course	Fire 77 - Haz Mat	Fall 2013	Spring 2013	Fall 2013
Course	Fire 78 - Fire Safety & Surviv	Fall 2013	Fall 2013	Spring 2014

#### 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
FIRE 107A		X		X		X		X	X		X		X		X	X
FIRE 107B		X		X		X		X	X		X		X		X	X
FIRE 200.1	X	X	X	X	X		X	X	X	X	X	X		X	X	X
FIRE 200.2	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
FIRE 200.3	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
FIRE 201		X	X	X	X		X	X	X	X	X	X	X	X	X	X
FIRE 202			X	X		X	X	X	X	X	X	X	X	X	X	X
FIRE 203	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 204.A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 204.B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 204.C	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X
FIRE 206	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 208	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 208.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 209		X	X		X	X		X	X	X	X	X	X			X
FIRE 241		X	X	X	X		X	X	X	X	X	X	X	X	X	X
FIRE 258	X	X	X	X	X		X	X	X	X	X	X				X
FIRE 259		X	X	X	X			X	X	X	X	X	X	X	X	X
FIRE 56	X	X	X	X			X	X		X	X	X				X
FIRE 61	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 71	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 72	X	X	X	X	X		X	X	X	X	X	X	X			X



FIRE 73	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 74	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 76	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 77	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 78	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## 4.2b Narrative (Optional)

### 4.2b Narrative (Optional)

In response to a request by Kris Abrahamson, the following Assessment Plan was developed for inclusion into this document in August 2014. The table was updated in March 2015.

### Fire Program 6-Year Cycle SLO Assessment Plan

Course	SLO #s	Participating Faculty	Semester Initiated or to Be Initiated	Semester Completed	Comments	Year of Next Assessment
Fire 56	1,2,3,4		N/A		Not Offered	
Fire 61	1,2,3,4	Stan Fernandez	Spring 2014	Spring 2014		Spring 2020
Fire 71	1,2,3	Jeff Allen/Mike Angeli/Ken Sebastiani	Spring 2013	Spring 2013		Spring 2019
Fire 72	1,2,3,4,5	Tzahal Avraham	Spring 2013	Spring 2013		Spring 2019
Fire 73	1,2,3	Paula Dueweke/Curt Newsom	Fall 2013	Fall 2013		Fall 2019
Fire 74	1,2,3	Michael Angeli/Curt Newsom	Fall 2013	Fall 2013		Fall 2019
Fire 76	1,2	Curt Newsom	Fall 2013	Fall 2013		Fall 2019
Fire 77	1,2,3,4,5	Eleanor Ratliff/Linda Collister	Fall 2013	Fall 2013		Fall 2019
Fire 78	1,2,3,4	Michael Haberski	Spring 2013	Spring 2013		Spring 2019
Fire 107A	1,2,3	Dan Bull	Fall 2014	Fall 2014	Contract Class thru So. Co.	Fall 2020
Fire 107B	1,2,3,4	Dan Bull	Spring 2015	Spring 2015	Contract Class thru So. Co.	Spring 2021
Fire 200.1	1,2	Ken Sebastiani	Spring 2014	Spring 2014		Spring 2020
Fire 200.2	1,2	Ken Sebastiani	Spring 2014	Spring 2014		Spring 2020
Fire 200.3	1,2,3	Curt Newsom	Fall 2015		Cancelled 2014 low enrollment	Fall 2020
Fire 201	1,2,3	Paula Dueweke	Spring 2013	Spring 2013		Spring 2019

Fire 202	1,2,3		N/A		Not Offered	
Fire 203	1,2,3,4	Jack Piccinini	Spring 2013	Spring 2013		Spring 2019
Fire 204A	1,2,3	Jack Piccinini	Spring 2013	Spring 2013		Spring 2019
Fire 204B	1,2,3	Jack Piccinini	Spring 2013	Spring 2013		Spring 2019
Fire 204C	1,2,3	Kim Thompson	Fall 2012	Spring 2013		Spring 2019
Fire 206	1,2,3	Randy Collins	Spring 2014	Spring 2014		Spring 2020
Fire 208	1,3	Gina Caruso/Cori Rickert	Spring 2014	Spring 2014		Spring 2020
Fire 208	2	Gina Caruso/Cori Rickert	Spring 2014	Summer 14		Summer 20
Fire 208.1	1,2,3,4,5	Randy Collins	Spring 2013	Spring 2013		Spring 2019
Fire 209	1,2,3	Stan Fernandez	Spring 2014	Spring 2014		Spring 2020
Fire 212	1,2,3,4		N/A		Not Offered	
Fire 241	1	Sean Grinnell	Spring 2014	Spring 2014		Spring 2020
Fire 241	2,3,4,5	Sean Grinnell	Fall 2014			Fall 2020
Fire 258	1,2,3	Sean Grinnell	Spring 2014	Spring 2014		Spring 2020
Fire 259					Course Inactive	
Fire 260					Course Inactive	
Fire 708	1	Jeff Snow	Spring 2014	Spring 2014	Course used only by EMC	Spring 2020

## 5.0 Performance Measures

### 5.0 Performance Measures

The most significant *non-academic* performance measures is our ability to remain current with the accreditation standards as established by State Fire Training (SFT). This has taken on an entirely new sense of urgency with the implementation of the new Firefighter I (FFI) curriculum and testing process, the new Firefighter II curriculum and the new Company Officer certification track. These have been identified here as *non-academic* due to the procedures that must be developed, staff training that must occur and acquisition of instructional aids that must all be completed before course delivery can occur. Speaking more specifically, it is estimated each staff member involved in the academy will need to

attend 24 hours of evaluator training, detailed policies for testing will need to be developed and close to \$150,000 of instructional aids (props) will need to be purchased and installed.

Another measure of non-academic services we provide is reflected by our ability to offer certifications for a variety of firefighting skills above and beyond what is required for a FFI certificate. This is conducted not only to enhance the skill level of the students, but to make them more marketable in what is generally considered a very competitive job environment. It also helps our program stand out among those offered at other community colleges. Most of these certifications are Fire Service Training Education Program (FSTEP) and National Wildfire Coordinating Group (NWCG) courses. A list of the certificates are as follows:

- Incident Command System (ICS) 200 (FSTEP)
- Auto Extrication (16 Hr FSTEP)
- Firefighter Safety and Survival (16 Hr FSTEP)
- S-130 (NWCG)
- S-131 (NWCG)
- L-180 (NWCG)
- S-190 (NWCG), and
- CalFire Basic Firefighter Certificate

Because the CalFire basic firefighter certificate is a prerequisite for employment as a Seasonal Firefighter with Cal Fire (the largest fire agency in the State), this represents a significant enhancement in that any fire academy graduate can immediately be hired by that agency and for our last 4 academies approximately 20% have been employed in that capacity by that agency.

Similar to the enhancements received in the Fire Academy, completion of our Volunteer Fire Skills program also allows students to receive the following certificates:

- Incident Command System (ICS) 200 (FSTEP)
- Confined Space Awareness (8 Hr FSTEP)
- Hazardous Materials First Responder Operational (20 Hr Calif. Specialized Training Institute).
- S-130 (NWCG)
- S-131 (NWCG)
- L-180 (NWCG), and
- S-190 (NWCG)

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

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

The Fire Technology provides a balanced class schedule convenient to students with day, evening, Friday, and weekend courses. A list of our offerings is shown below:

#### **Summer 2015 Schedule**

Fire 208 - 1 section (2 SAT & SUN 8am-5pm)  
71 – 1 section (M & W 5:30-10:30 PM)  
section (by appointment)  
sections (by appointment)

Fire  
Fire 708 - 1  
Fire 991 - 2-3

**Spring 2015 Schedule:**

Fire 71 – 4 sections (M 7-10pm,T 7-10,F 9am-12pm,TBA On-Line)  
Fire 72 – 2 sections (TH 7-10pm and On-line)  
Fire 73 – 1 section (T 7-10pm)  
Fire 74 – 2 sections (M 7-10pm and On-line) Fire 76  
– 1 section (TH 9am-12pm)  
Fire 77 – 1 section (W 7-10pm cancelled low enrollment)  
Fire 78 – 1 section (M 7-10) Fire  
107B - 1 section (W 7-10, Sat 8-5)  
Fire 200.1 – 1 section (F 8:30am-5pm) Fire  
200.2 - 1 section (F 8:30am-5 pm) Fire  
201 - 1 section (F 8:30am- 5 pm)  
Fire 203 – 1 section (M-F 8am-5pm)  
Fire 204A – 1 section (F 6-10pm, S 8am-5pm, SUN 8am-5pm)  
Fire 204B – 1 section (F 6-10pm, S 8am-5pm, SUN 8am-5pm)  
Fire 204C – 1 section (F 6-10pm, S 8am-5pm, SUN 8am-5pm)  
Fire 206 – 2 sections (M-F 8-5)  
Fire 208 – 2 sections (2 SAT & SUN 8AM-5PM)  
Fire 208.1 – 2 sections (Int 8am-5pm M-F & Ext T & TH 6-10pm, SAT 8am-5pm, SUN 8am-5pm) Fire  
209 - 1 section (M-F 8-5) Fire  
241 – 1 section (F 6-10pm, S 8am-5pm, SUN 8am-5pm) Fire 258 – 1  
Section (F 6-10pm, S 8am-5pm, SUN 8am-5pm) Fire 708 – 1 section (by  
appointment) Fire 991 - 3 to 5 sections by  
appointment

**Fall 2015 Schedule**

Fire 71 - 3 sections (M 7-10 pm, W-130-430pm, TBA On-line)  
Fire 72 - 2 sections (TH 7-10 pm, TBA On-line)  
Fire 73 - 1 sections (T 7pm-10pm) Fire 74  
- 1 sections (M 7-10pm) Fire 76 - 1  
section (T 130-430 pm)  
Fire 77 - 1 section (W 7-10pm)  
Fire 78 – 1 section (M 7-10) Fire  
107A - 1 section (W 7-10, Sat 8-5) Fire  
201- 1 section (F 8-5) Fire 200.3 – 1  
section (W 8-5) Fire 203 - 1  
section (M-F 8-5) Fire 206 1  
section (M-F 8-6) Fire 208 – 2  
sections (2 SAT & SUN 8AM-5PM) Fire 208.1 1  
section (T & TH 6-10pm, SAT & SUN 8-5pm) Fire 209 - 1 section (F 6-  
10, Sat, Sun 8-5) Fire 708 – 1 section (by

appointment)  
appointment)

Fire 991 - 3 to 5 sections (by

To provide a balanced offering for working students, almost all core courses required for the degree or certificate program are offered both during the day and evening. Conversely, for "In-service" courses, because our primary population is working firefighters, these are offered during the day. The one exception to this is for our Fire 204 A & B courses which we also offer in the evening/weekend to serve volunteer firefighters and not conflict with their employment.

In regards to their geographic distribution, all degree and certificate core courses are offered both at Petaluma and in Windsor. Most "In-service" courses are offered in Windsor with two offered in Petaluma

As a result of the drought conditions and extended fire seasons we have experienced for the last several years, we have experienced a serious reduction in our fall "In - Service" enrollment. This led to a number of courses being cancelled in Fall 2014. Because of the adverse effect this has on our students, with the concurrence of our Advisory committee, we have made a conscious decision to cut back four of our fall "In-Service" offerings. It is worth noting that if these drought conditions and the accompanying extended fire seasons become the new norm, it will require a radical new approach on how we offer any fall courses including the Firefighter I academy.

Currently, we offer Fire 71 and 72 both Distance Ed (DE-On-line) and classroom versions with Fire 74 available in a hybrid format in the Spring only. Finding new instructors to develop and instruct On-Line courses continues to be a challenge. As identified in section 3, it is one of our goals to make all of our core courses available on-line within 3 years.

In terms of our ability to serve our students, I feel we do a decent job balancing the hours, location and format. Eighteen months ago, we updated our 5 Year Course Plan and suggested sequence of courses to clearly identify a two year articulation path for our degree and certificate students.

Please refer to sections 5.2a & b for a record of student headcounts for the last three years.

## 5.2a Enrollment Efficiency

### 5.1 Student Headcounts

#### Santa Rosa Campus

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	17	80	183	10	153	161	14	160	132	12	160

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	34	244	279	23	185	197	33	183	220	33	151

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	72	432	403	62	329	403	79	339	372	41	168

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	123	756	865	95	667	761	126	682	724	86	479

## 5.2a Enrollment Efficiency

Over the last 4 years, the program has averaged an enrollment efficiency of 84.7% (not including summer). In the writer's opinion, one reason why this has not been higher is due to a lack of on-line courses which have always been popular. As discussed in 2.3d, the program continues to aggressively seek on-line instructors but has been challenged by a lack of response.

It is also apparent that there has been a general downward trend in our efficiency. We have attributed one reason to a marked increase in the number of course offerings, particularly in the California Fire Service Training and Education System (CFSTES) classes. For example, since Fall of 2010, our offerings of these courses has increased 47%. As classes required for specific certifications, the demand has been strong from career firefighters who wish to promote. To that end, we have been asked by our local fire agencies to offer them in order to provide a qualified pool of candidates to fill the vacancies of those retiring from the profession.

Another trend that will impact enrollment is the retirement of the CFSTES Fire Officer certification track on December 31, 2016 and its replacement with a new Company Officer track on January 1, 2017. This is expected to spike our enrollment in this track over the next year and create a temporary drop when the new track courses begin to be offered.

**Santa Rosa Campus**

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	0.0%	86.3%	79.5%	0.0%	81.2%	67.5%	0.0%	71.4%	62.4%	0.0%	89.4%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2012
Fire Tech (FIRE)	75.6%	93.8%	88.6%	51.1%	86.0%	73.0%	73.3%	73.2%	77.5%	73.3%	64.6%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	84.6%	95.0%	78.4%	75.7%	85.0%	73.1%	88.6%	74.3%	82.7%	55.0%	65.8%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	80.9%	93.6%	82.0%	66.1%	84.4%	71.9%	82.6%	73.3%	77.2%	64.7%	71.5%

## 5.2b Average Class Size

### 5.2b Average Class Size

As can be observed by the tables below, our average class size has trended slightly downward.

**Santa Rosa Campus**

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	0.0	69.0	39.8	0.0	46.0	33.8	0.0	37.5	35.3	0.0	50.7

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	34.0	40.7	34.9	23.0	37.0	28.1	33.0	30.5	27.5	33.0	25.8

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	27.5	30.1	22.7	26.5	26.2	21.9	31.0	21.4	20.2	22.0	19.8

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Tech (FIRE)	29.7	35.5	28.9	25.3	32.2	25.3	31.7	26.4	23.8	27.5	27.4

## 5.3 Instructional Productivity

### 5.3 Instructional Productivity (annual)

As can be seen by the figures below, the program has consistently exceed the college goal of 18.7 for Instructional Productivity. Much of this can be attributed to the attendance in the Fire Academies which are almost always reach capacity.

### Santa Rosa Campus

Fire Tech (FIRE)		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
	FTES	1.17	8.17	17.93	0.63	15.50	1587	0.93	16.20	12.77	0.90	16.10
	FTEF	0.00	0.30	0.80	0.00	0.60	0.80	0.00	0.80	0.60	0.00	0.70
	Ratio	0.00	27.22	22.42	0.00	25.83	193	0.00	20.25	21.23	0.00	23.00

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

Fire Tech (FIRE)		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
	FTES	3.69	24.40	27.90	2.47	18.50	19.70	3.55	17.43	20.81	3.55	14.39
	FTEF	0.21	1.20	1.60	0.21	1.00	1.40	0.21	1.15	1.46	0.21	1.08
	Ratio	17.60	20.33	17.44	11.79	18.50	14.07	16.91	15.17	14.26	16.91	13.34

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

Fire Tech (FIRE)		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
	FTES	6.65	49.50	64.66	3.30	44.19	65.51	2.10	47.93	70.24	1.50	35.69
	FTEF	0.00	1.46	1.44	0.21	1.27	1.86	0.03	1.40	3.29	0.05	1.63
	Ratio	0.00	33.81	44.81	16.04	34.69	35.19	82.50	34.26	21.36	32.83	21.84

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

Fire Tech (FIRE)		X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
	FTES	11.51	82.07	110.50	6.40	78.19	101.08	6.57	81.55	103.81	5.95	66.18
	FTEF	0.21	2.96	3.84	0.42	2.87	4.06	0.23	3.35	5.35	0.26	3.41
	Ratio	54.89	27.69	28.75	15.42	27.21	24.89	27.97	24.36	19.41	23.29	19.39

## 5.4 Curriculum Currency

### 5.4 Curriculum Currency (annual)

I am pleased to report that effective last Spring, all curriculum has been updated and are current.

## 5.5 Successful Program Completion

## 5.5 Successful Program Completion (annual)

To complete the Fire Technology program with either a Certificate or Major, most students pursue an option that includes the Fire Academy (Fire 208.1). Although this route provides for a very balanced and thorough learning experience, it does create some logistic challenges due to the need to complete the 3 Academy prerequisite courses including Fire 208 before the enrollment deadline for the Fire Academies of June 1st and October 1st (well before the normal enrollment deadlines for Fall and Spring). One scheduling change we made several years ago was to realign the Fire 208 prerequisite to occur very early in the semester. This allows the student who successfully completes the course to enroll in the fire academy the next semester. Prior to this change, the deadline had elapsed and the student had to wait another 6 months before being eligible to enroll.

In addition to the resources available to our students, with 36 Adjunct instructors (most of whom are employed in the fire service) available to provide guidance and counseling, it is not unusual for them to assist the students out of the normal class hours. For example, instructors routinely offer the use of the facilities of their local fire agencies to provide remediation opportunities. The Fire Technology program takes a tremendous amount of pride on this high level of collaboration.

Fire Technology Certificates awarded in 2014 are 10, down significantly from 60 in 2013. However, it should be noted that large swings have historically occurred with these awards. For example, 16 were awarded in 2010, 24 in 2011 and 45 in 2012. The average number of annual awards for the last five year period was 31.

Firefighter I Academy Certificates awarded in 2014 are 89, down slightly from 92 in 2013 (3%).

Major/Degrees (AS Degree in Fire Technology) awarded in 2014 are 43, up slightly (10%) from 39 in 2013.

## 5.6 Student Success

### 5.6a Retention

The retention rate for the FT Program for 2014 is 86.53% which is higher than the overall District rate. This can be attributed to several factors. First, the passing grade for the Firefighter I Academy is 80% which raises most student's GPA's. In addition, many students are already employed in the field and subsequently, their prerequisite knowledge of the subject matter is higher. Lastly, many are sponsored by fire agencies or have scholarships that have set high minimum academic standards to qualify. For a breakdown of retention by semester, please refer to the tables below.

#### Santa Rosa Campus

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	94.1%	67.9%	80.0%	80.0%	72.5%	68.3%	71.4%	71.9%	71.2%	100.0%	73.1%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	87.1%	79.4%	80.0%	100.0%	85.9%	82.7%	97.0%	84.2%	86.4%	90.6%	83.1%



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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	81.5%	86.3%	93.0%	65.4%	87.7%	87.3%	90.3%	89.0%	91.2%	90.9%	87.4%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	85.3%	81.7%	88.4%	76.5%	83.5%	81.8%	89.9%	83.4%	86.0%	92.4%	81.2%

## 5.6b Successful Course Completion

The successful course completion rate for the FT program in 2014 was 84.70% which is up slightly from 84% average for the previous 3 year average). Compared to the District rate, our the FT success rate is significantly higher.

**Santa Rosa Campus**

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	88.2%	64.1%	76.6%	80.0%	71.2%	67.7%	71.4%	69.4%	70.5%	100.0%	70.0%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	87.1%	76.5%	85.8%	100.0%	84.3%	79.7%	97.0%	80.3%	80.9%	90.6%	78.6%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	75.9%	84.9%	92.1%	63.5%	83.6%	86.5%	88.7%	87.7%	90.6%	90.9%	85.5%

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	81.4%	79.5%	86.5%	75.3%	80.8%	80.4%	89.0%	81.0%	83.9%	92.4%	78.0%

## 5.6c Grade Point Average

The Grade Point Average for Fire Technology over the last three years has been 2.70 (down slightly from 2.77 for the previous 3 year period). Our FFI Academies GPA tend to trend higher as the minimum passing grade is 3.00. It should be noted that these figures are influenced by the 200 series classes (State Fire Training Courses) which are all Pass/Fail.

**Santa Rosa Campus**

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	2.60	2.20	3.11	3.81	3.00	3.08	3.00	2.93	3.23	3.41	2.93

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	3.13	2.96	3.24	3.83	3.13	2.90	3.13	2.69	2.47	3.58	2.08

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	0.79	2.69	2.53	3.02	2.67	2.55	2.66	2.19	2.25	0.00	2.51

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

Discipline	X2011	F2011	S2012	X2012	F2012	S2013	X2013	F2013	S2014	X2014	F2014
Fire Technology (FIRE)	1.97	2.72	2.86	3.40	2.88	2.73	2.97	2.49	2.44	2.78	2.52

## 5.7 Student Access

### 5.7 Student Access (every third year)

#### 5.7a Ethnicity

With the exception of White and Latino students in the program, the ethnicity in Fire Tech (FT) trends to two percentage points to the District as a whole. For example, at the District level, White students comprise 56% of the student population, whereas within the FT program, the percentage is 72% (up slightly from 2013). The second largest group is the Latino at 19% which remains strong from a significant jump of 11% in 2012. Overall, our trends reflect those occurring in the general student population.

#### ALL Locations (Combined totals from ALL locations in the District - Source 2014 Fact Book)

Fire Tech (FIRE)	Ethnicity	2011-12	Percent	2012-13	Percent	2013-14	Percent	2014-15	Percent
	White	1156	72.4%	958	68.5%	997	69.3%	899	72.2%
	Asian	25	1.6%	26	1.9%	22	1.5%	7	0.6%
	Black	14	0.9%	18	1.3%	17	1.2%	16	1.3%
	Hispanic	126	7.9%	152	10.9%	278	19.3%	237	19.0%
	Native American	9	0.6%	8	0.6%	13	0.9%	5	0.4%
	Pacific Islander	7	0.4%	6	0.4%	5	0.3%	4	0.3%
	Filipino	13	0.8%	6	0.4%	4	0.3%	5	0.4%
	Other Non-White	0	0.0%	0	0.0%	59	4.1%	64	5.1%
	Decline to state	247	15.5%	224	16.0%	44	3.1%	9	0.7%
	<b>ALL Ethnicities</b>	<b>1597</b>	<b>100.0%</b>	<b>1398</b>	<b>100.0%</b>	<b>1439</b>	<b>100.0%</b>	<b>1246</b>	<b>100.0%</b>

#### 5.7b Gender

The percentage of students enrolled by gender within the Fire Tech (FT) program is nearly the opposite as that of the District as a whole. The District's numbers indicate females outnumber males approximately 54 to 45% while in the FT program, males comprise 90.2% of the population (up slightly from 89% in 2013). The number of females rose almost 2 percentage points to 9.2% (from 7.3% in 2013). These numbers reflect an industry that has a male dominated work force. This has long been recognized in the industry as well as the in FT programs throughout the California Community College system and is being continually evaluated for improvement.

In the FT program, two strategies have been implemented to help foster a change to this trend. First, as alluded in Section 3.2, a significant number of our instruction staff are female (20%) with the rationale it will make the program more attractive to female students. The second is a concerted effort being made to promote female enrollment by attending Career Fairs at local high schools. For example, in 2013, FT personnel attended Career Fairs at Elsie Allen High, Bolinas High School, Sonoma State and Roseland Middle School. In addition, program staff have also attended the District Career Fair held each spring for the last 4 years.

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

Fire Tech (FIRE)	Gender	2011-12	Percent	2012-13	Percent	2013-14	Percent	2014-15	Percent
	Male	1453	91.0%	1256	89.8%	1272	89.4%	1124	90.2%
	Female	125	7.8%	130	9.3%	105	7.3%	115	9.2%
	Unknown	19	1.2%	12	0.9%	62	4.3%	7	0.6%
	<b>ALL Genders</b>	<b>1597</b>	<b>100.0%</b>	<b>1398</b>	<b>100.0%</b>	<b>1439</b>	<b>100.0%</b>	<b>1246</b>	<b>100.0%</b>

#### 5.7c Age students in each Discipline at first census broken down by age .

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

Fire Tech (FIRE)	Age Range	2011-12	Percent	2012-13	Percent	2013-14	Percent	2014-15	Percent
	0 thru 18	116	7.3%	118	8.4%	151	10.5%	137	11.0%
	19 and 20	352	22.1%	295	21.1%	317	22.0%	219	17.6%
	21 thru 25	579	36.3%	497	35.6%	481	33.4%	462	37.1%
	26 thru 30	317	19.9%	267	19.1%	251	17.5%	229	18.4%
	31 thru 35	113	7.1%	130	9.3%	125	8.7%	115	9.2%
	36 thru 40	63	3.9%	40	2.9%	47	3.3%	43	3.5%
	41 thru 45	39	2.4%	26	1.9%	35	2.4%	17	1.4%
	46 thru 50	7	0.4%	13	0.9%	17	1.2%	6	0.5%
	51 thru 60	10	0.6%	11	0.8%	14	1.0%	15	1.2%
	61 plus	1	0.1%	1	0.1%	1	0.1%	3	0.2%
	<b>ALL Ages</b>	<b>1596</b>	<b>100.0%</b>	<b>1397</b>	<b>100.0%</b>	<b>1438</b>	<b>100.0%</b>	<b>1246</b>	<b>100.0%</b>

## 5.8 Curriculum Offered Within Reasonable Time Frame

### 5.8 Curriculum Offered Within Reasonable Time Frame (respond every third year)

The Fire Technology Program at SRJC offers all of its required Core classes each semester – Fire 71, Fire 72, Fire 73, Fire 74, Fire 76, Fire 77 and Fire 78. In addition, during the summer we offer Fire 71. We also we offer in the Fall and Spring semesters such electives as, Fire Command, Training Instructor, Fire Investigation, Fire Management and Driver Operator for students who are currently employed with fire agencies. This is important as it allows employed firefighters to obtain their Fire Officer Certificate within a one year period.

The total number of sections offered is 30 for the Spring semester and 26 for the Fall for an average of 28 (an increase of approx. 40% since 2010). Each semester includes the Firefighter I Academies (2 sections offered in the Spring semester and 1 Section offered in the Fall) and Fire Technology Occupational Work Experience Internships.

Two years ago, a fire year rotational plan (with two optional paths) was updated to ensure course offerings were sufficient to allow a student to complete our certificate and degree programs within two years.

## 5.9a Curriculum Responsiveness

### 5.9 Curriculum Responsiveness (every third year)

The Fire Technology major at SRJC provides practical and technical instruction to meet the requirements of various fire service agencies at the local, state, and federal levels. The Course Curriculum meets the State Fire Training (SFT) requirements for our accreditation as an Accredited Regional Training Program (ARTP) Fire Academy. Our Core classes (Fire 71, 72, 73, 74, 76, 77 and 78) are aligned with the Fire and Emergency Services Higher Education (FESHE) model and meet current transfer requirements at the CSU.

One of the most obvious examples of our curriculum responsiveness has been the changes being made to the SFT courses we offer as an ARTP. Since 2011, SFT has been updating the curriculum for each of their professional development tracks to align with National Fire Protection Association (NFPA) standards. To keep our curriculum current, over the last year, the entire Course Outline of Record (COR)

for the Firefighter I Academy (FFI) was rewritten and approved to meet the new SFT course plan including the certification testing process required at the termination of the academy.

In addition, when it was learned the SFT Fire Officer track was being retired at the end of 2016, it created a surge in enrollment of students striving to complete this coursework before this deadline. It has also created a need to develop and obtain approval of the curriculum for the eight new courses that comprise the new track (described below).

One unexpected outcome of this alignment process has been the interest by local fire agencies for the program to implement the SFT certification testing process for Firefighter II (FFII). Although traditionally conducted by local fire agencies, because this testing process must be conducted by an ARTP, we have been approached by local fire agencies to begin offering the testing component. This concept was also supported by our Advisory Committee who voted for us to begin implementing the testing at our April 2015 meeting.

Amongst the composition of the Fire Technology Advisory Committee, of the fourteen members, all are employed in the fire service in Sonoma, Marin, Mendocino or Napa Counties. Of these members, two serve as adjunct faculty.

At our Advisory meetings, we review the changes to our course offering (including curriculum) and receive the approval of the committee prior to implementing any changes and bringing them to the Curriculum Committee for their approval. For example, at our April 2015 meeting, the committee reviewed and approved the proposed Course Outline of Record for the following courses:

- Fire 219: Intermediate Fire Behavior
- Fire 270.1: Incident Command Operations for Company Officers
- Fire 270.2: Wildland Incident Operations for Company Officers
- Fire 270.3: Hazardous Materials Incident Commander
- Fire 271.1: Human Resource Management for Company Officers
- Fire 271.2: Fire Administration for Company Officers
- Fire 272: Fire Inspections and Investigations for Company Officers
- Fire 273.1: Fire Service Instructor I

It is anticipated that all these courses will be approved by the District's curriculum committee by October 2015.

Another curriculum path we have pursued is the implementation of a Volunteer Fire Skills certificate program. Given the large number of Volunteer Firefighters in the County, there is a genuine need for such a path. To that end, the Sonoma County Dept. of Fire and Emergency Services agreed to partner with our program to deliver to their 15 Volunteer Fire Companies and we are now in the second semester offering the program. It should also be noted that an outline of this program has been adopted by the California State Firefighter's Association to deliver to other Volunteer Fire departments outside of the County so our program in many ways has been a leader in this field at the statewide level.

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

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

Fire 71 can be taken by High School Students through their enrichment program and is available on-line. Marin and Sonoma counties host Explorer Programs that are also linked with our Firefighter I Academy curriculum. Articulation does occur with our prerequisite courses to enter our Firefighter I Academy, such as EMS 100 – First Responder, CPR and Advanced First Aid.

While a dialogue has also been initiated with the Napa High school ROP program (of which the Fire Tech Director sits as a member of their Advisory Committee), it appears the on-line Fire 71 on-line course may prove the best venue for maintaining a nexus with the program.

To promote this alignment, the Program Director serves on the Advisory Committee for the Napa ROP program and has attended every one of their meetings since 2011.

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

### 5.10a Alignment with Transfer Institutions (Transfer Majors ONLY, every third year)

Our Fire Technology 70 series courses all transfer to lower division units at CSU Sacramento, Long Beach and Los Angeles (Fire Administration Degrees). Columbia Southern on-line program ([www.columbiasouthern.edu](http://www.columbiasouthern.edu)), Brandman University ([www.brandman.edu/irvine](http://www.brandman.edu/irvine)), Southern Illinois University ([www.siufire@siu.edu](mailto:www.siufire@siu.edu)) and Kaplan University represent private have on-line programs that also accept our core Fire Technology units as lower division transfer units towards a Bachelor's degree in Fire Science.

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

### 5.11a Labor Market Demand (Occupational Programs ONLY, every second year)

Over the past 5 years there has been a surge of Fire service retirements throughout California. This is due in part to the retirement package known as 3% at 50 which has allowed firefighters to retire at age 50 with up to 90% of their current salary. This has opened the application process to many of our graduates and it appears that this trend will continue for the next few years.

According to the labor market web site [www.labormarketinfo.edd.ca.gov](http://www.labormarketinfo.edd.ca.gov) California's labor market projections (2010-2018), the Fire Service will experience a 10% growth in employment with the Bureau of Labor and Statistics projecting the nationwide number of firefighter openings to increase 18% by 2018 with most agencies slowly returning to fiscal health. It should be noted that approximately 70% of our Academy students serve as volunteer firefighters which often lead to a paid positions.

However, one of the most encouraging statistics is that with the recent curriculum changes to the Fire Academy (Fire 208.1), students now receive a *Calfire Basic Firefighter* certificate upon successful completion of the academy. This has led to 20% of the graduates in the last three academies being hired by Cal Fire. In addition, Santa Rosa Fire department recently hired six academy graduates which supports the above mentioned trend.

Within our region (North Bay/Sacramento), Solano, American River and Sierra College also offer degrees in the same discipline.

## 5.11b Academic Standards

### 5.11b Academic Standards (every third year)

Our program continues to struggle with the need to adopt higher standards for reading and writing skills. Recently, we have revised the fire academy screening course (Fire 208) to include a more rigorous English component in order to acquire an adequate amount of data to convince the District Curriculum Committee to permit a prerequisite of English 100 for the Fire Academy (Fire 208.1) It is interesting to note that this was dropped as a prerequisite several years ago for lack of this very data.

It was with great interest to learn that this spring the Curriculum Review Committee has approved the expansion of their prerequisite pilot to allow adding Basic Skills courses without the burdensome statistical validation process. To that end, we will be pursuing requesting English 100 as a prerequisite for the Fire Academy.

## 6.1 Progress and Accomplishments Since Last Program/Unit Review

Rank	Location	SP	M	Goal	Objective	Time Frame	Progress to Date
0001	ALL	00	00	Hire a F/T Faculty to replace one retiring Dec 2013.	Obtain Admin Approval, begin recruitment process, conduct interviews, make selection, complete background process	By July 1, 2014	Instructor Hired and in the 1st Year of their Tenure Review
0002	Windsor	01	02	Hire a replacement Admin Assistant for the Fire Program	submit request to AA	July 1, 2014	New AA has been hired and in the position since 7/2014
0003	Windsor	00	00	Finish those site improvements needed to operate academy at the PSTC	Obtain DSA approval (for DSA projects) and award contracts for all RFB's prepared	Dec 31, 2013	Last project (Roof Vent Prop) is Board approved and waiting for bid request notice to be issued by purchasing
0004	ALL	00	00	Obtain reaccreditation as a regional training center with SFT	Arrange site reaccreditation visit	Dec 31, 2013	Site Visit occurred 11/12/14 STEAC approved 1/16/2015 SBFS approval expected 5/22/15
0005	ALL	00	00	Expand offerings of Volunteer Skills with other So. Co. Fire Agencies	Begin program to promote with Fire Chief's Association	Dec 31, 2013	In second year of offering the program via contract with So. Co. Fire. Now that it is established, interest in program is growing.
0006	ALL	00	00	During each calendar year, continue to offer all courses required for State Fire Officer Certification	Obtain CC approval for the courses as they become available from State Fire Training	Dec 31, 2013	New courses in process of going through the approval's process
0007	ALL	00	00	Hire min. one Adjunct to develop On-line course(s)	Query existing Adjunct pool & other Fire Tech Directors of recruitment, conduct interviews, make selection, complete background process	Dec 31, 2013	One Adjunct hired to instruct Fire 71 & 74 online

## 6.2a Program/Unit Conclusions

Location	Program/Unit Conclusions
Windsor	<p>In the analysis performed of our program, we examined what the expected future demands will be. Based on the feedback from local fire agencies and our students, we have concluded that there will be significant demand in three areas: Offering the Fire academy with the 2013 certification test, using the new State Fire Training (SFT) curriculum; Offering the SFT Firefighter II certification testing process for outside agencies and; Offering the new SFT Company Fire Officer track courses and certification testing..</p> <p>Implmenting these programs, the biggest impact will be obtaining the resources (both personnel and facilities) to implment the FFI certification testing process which based on estimates received will be close to \$200,000.</p> <p>Another concern is the implications of climate change and long term drought on the program. If these trends continue, we may have to cancel our fall fire academy as many of our instructional staff who work as firefighters become committed to incidents as fire season expands into November. The other problem will be any curtailment of water use which will make it impossible to conduct the hose and fire stream evolutions that are required in our curriculum. One potential solution to this problem is to install a water reclamation system in those areas where these evolutions are conducted..</p>

## 6.2b PRPP Editor Feedback - Optional

### 6.2b PRPP Editor Feedback

Given the recent passage of Measure H and the great interest in updating many of the District's facilities, perhaps the inclusion of a section to address each program's facilities would be warranted. In this section such information as the age, condition, and size could be identified so as to help provide the information that will almost certainly be required as part of the Master Planning process which will direct this process.

I also feel there would be tremendous value to reinstating the *Program/Unit Vision for the Next Three Years* that was last included in the 2013 PRPP (Unit 3.1a). Speaking for my own program, the change we are experiencing is unprecedented. The result is a need to articulate these changes and the impacts they will have not only on the Fire program, but the District as well. Re-introducing this section would provide the vehicle to do this.



### 6.3a Annual Unit Plan

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
0001	Windsor	01	00	Finish those site improvements needed to operate academy at the PSTC	Obtain DSA approval (for DSA projects) and award contracts for all RFB's prepared	Dec 31, 2013	Admin approval, support of Facilities Dept.
0002	ALL	02	00	Obtain reaccreditation as a regional training center with SFT	Arrange site reaccreditation visit	Dec 31, 2013	Time (ideally created by a F/T Fire Academy Coordinator)
0005	ALL	00	00	Expand offerings of Volunteer Skills with other So. Co. Fire Agencies	Begin program to promote with Fire Chief's Association	Dec 31, 2013	Approval of Business Services to expand program
0006	ALL	00	00	During each calendar year, continue to offer all courses required for State Fire Officer Certificate	Obtain CC approval for any courses updated by State Fire Training	Dec 31, 2013	Admin approval to offer additional courses
0007	ALL	00	00	Hire min. one Adjunct to develop On-line course(s)	Query existing Adjunct pool & other Fire Tech Directors of recruitment, conduct interviews, make selection, complete background process	Dec 31, 2013	Admin approval & HR support