

Santa Rosa Junior College

Program Resource Planning Process

Fire Technology 2017

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 threefold:

- 1) To offer an enhanced Firefighter I Academy as an Accredited Regional Training Program (ARTP) through State Fire Training including Firefighter I and II certification testing to all local fire agencies.
- 2). To provide for high quality Certificate and Degree programs that adhere to the Fire and Emergency Services Higher Education (FESHE) model as developed by the National Fire Academy (NFA) and adopted by the NFA and State Fire Training which will enhance opportunities for employment and advancement in the Fire Service.
- 3). To offer California Fire Service Training and Education System (CFSTES) courses to allow "In Service" students to obtain certification for advancement and promotions.

1.1b Mission Alignment

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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 its values are as follows.

- By providing the opportunity to achieve a Degree in Fire Technology, students 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 State Fire Training (SFT), the International Fire Service Accreditation Congress (IFSAC), and Fire Service Professional Qualifications (Pro-Board) 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 their chosen field.
- That the ethnicity in our programs has grown to mirror the District, our diversity has increased almost 50% over the last few years. With over 25% of our graduates being hired with 6 months of graduating from our academies demonstrates the vitality and equity of our program.
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 - That we have ceased running our academies off-site avoiding travel (and carbon emissions) has supported our efforts to become more environmentally responsible and sustainable.
- Within our program, continuous learning is strongly supported. As an example our Admin. Assistant will be attending a SFT Instructor Workshop in June and the Director serves on the Statewide Education Advisory Committee (STEAC) and is President of the California Fire Technolgy Director's Association (CFTDA).
- As a Career Technical Education program that requires the active participation of local fire agencies to be successful, civic involvement is critical to this goal. To that end, the Director serves as the Secretary (and Past President) of the Sonoma County Fire Chief's Association (SCFCA), is also 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 and is President of the Healdsburg Kiwanis Club. • 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 our SFT reaccreditation report in 2015.

1.1c Description

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The Fire Technology program is taught by one full-time faculty, 38 adjunct faculty, 8 Recruit Training Officers (RTO's), 27 State Fire Training Certified Skills Evaluators, 64 Professional Experts and over 50 volunteers. These staff 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 a Professional Expert who works as a materials handler 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 seeking enhanced skills and training already employed. The certificate and degree programs are centered around 6 "Core" courses 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 the fall semester and an "Intensive" academy conducted Monday through Friday, 8-5 in the spring semester over a 12 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 (WE) Program. Through a cooperative working relationship with WE, 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, Women at Ground Zero Scholarships. In addition, after the passing of respected Adjunct Instructor Michael Haberski in 2016, a scholarship has been established for Fire Program students in his name.

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 "shift" conducted during the wildland component of the academy to replicate the work 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, Administrative Assistant for Fire Technology and Academy Coordinator have their offices at the PSTC. The Program full-time faculty at Petaluma has designated office hours Monday and Tuesdays 6-7 PM and Adjunct Faculty have 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 an Accredited regional Training Program (ARTP) through State Fire Training (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 to 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 effort that was recently completed by SFT to align these paths with national standards. As the courses that create these new paths were adopted, it also triggered a transition period prior to retiring 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 from the very beginning using the new curriculum.

It should also be noted that the continued success of our program will rely on our ability to keep our curriculum current in order to remain relevant to fire education. Over the last two years, a concerted effort has been made to write and obtain the approvals for the eight new courses required for a SFT *Company Officer* and the two courses required for *Apparatus Operator* certificate. They have subsequently been completed and approved by the college as well as the Chancellor's office. These efforts will not only enhance and keep our program current, 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 that has resulted in a significant increase in hiring (for example, over the next two years, San Francisco Fire alone will be hiring 300 Firefighters). This has also 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. However, with a recent mandate to reduce course offerings to address the District's structural deficit, our ability to continue this practice will be jeopardized and may result in our student's becoming disenfranchised and seeking these courses elsewhere. This has the potential to create a "snowball" effect and it is my belief, will lead to a significant loss of enrollment for other courses and have a very adverse effect on the program.

Partnerships with local agencies have also played an important role in the delivery of our 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). Upon 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 our most successful offerings. It has also interesting to note that many of the students who attend this class come from other college fire programs who do not offer such a course. We have also been asked by SFT to expand the offerings for this course to allow candidates who have Firefighter I certification from other states to obtain reciprocity here in California which this class provides.

Since 2013, we have been offering the Volunteer Fire Skills program which consists of the Volunteer Fire Skills class in the fall and the companion Advanced Volunteer Fire Skills in the spring. Delivered through a contract with the Sonoma County Fire Department, since most students are volunteers with local fire agencies, they are eligible for scholarships through the California Firefighter's Association (CSFA). Because most also receive stipends for their volunteer response activities, the program serves as an effective path to part-time employment. I am happy to report that enrollment continues to grow and has increased almost 100% from our first year with seven fire agencies participating (up from two) in 2016.

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 with the new curriculum which has become a challenge due to the props necessary to conduct the mandatory skills tests (to be addressed in more detail later).

The second are the efforts by 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 other states, SFT has long recognized the benefits of aligning their certificate programs with IFSAC & Pro Board requirements. Some of these benefits include; transportability for the students, expanding employment opportunities to a national level and promoting student success. Since accreditation by these organizations rests on our ability to deliver an exam process that meets specific criteria, much of our efforts in 2016 have centered on restructuring our testing to meet these requirements. Now that we have completed two academy certification tests, we have found it necessary to increase the process from 7 to 32 hours and almost double the staff involved which have increased our labor costs.

Our students can also expect to bear some addition costs associated with IFSAC and Pro Board certification. An \$18 charge to the third party vendor who delivers the on-line written exam has been implemented as well as a \$10 charge to SFT. And when a student submits their application to SFT upon completion of the work experience component (one year after completing the academy), they can expect to pay an additional \$130-\$150 for the IFSAC/Pro-Board Certificates.

It should however, be noted that with these changes, there is a significant benefit to our program. As it will be difficult for smaller agencies to conduct FFI certification testing, it creates an opportunity for SRJC to offer the testing (and a preparation component) as a "Stand Alone" class and become a regional testing center to local fire agencies which represents a significant marketing opportunity. In spring 2017, we will be offering this course for the first time, immediately following the completion of the regular FFI Academy. In addition, because fire agencies will need to use the program to conduct testing for other certificates such as Firefighter II, there will be a need in the near future for a "Stand Alone" Firefighter II certification test classes which has been approved.

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.

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 accounts 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 most utilized is the 4390. Uses for this account include propane to operate our car fire and exterior gas cylinder prop and wood products used for the ventilation, forcible entry units as well as the live fire exercise. In the 2016 PRPP, it was anticipated that the expenditures in this category would increase as we implemented the 2013 Firefighter I (FFI) curriculum due to the introduction of new skills requiring additional props and materials. Now that we have completed three academy using this curriculum, we have found the quantity of materials required has roughly doubled. Although we have made some saving through a more aggressive use of competitive vendors, of the \$8,900 that was budgeted for the year, less than \$962 remains with roughly half the budget year ahead of us. To that end, we would ask \$17,800 be budgeted for 2017-18 FY.

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

The 5659 covers costs such as refilling of extinguishers for fire extinguisher training, ladder testing, hydrostatic testing and repairs of our SCBA bottles, air testing and maintenance for our compressor, maintenance and supplies for our power tools and maintenance and repairs for our fire apparatus. As with the 4390 account, expenditures did increase as we implemented the new FFI curriculum which approximately doubled the skills hours, increasing wear and tear on all our equipment and ultimately our repair costs. With three academies completed, we have learned the \$6,600 budgeted has been exceeded mainly due to unexpected service on our compressor and props. To that end, I would recommend we increase this amount to \$13,200 for 2017/18.

The 5190 account addresses costs associated with services including contracts, permits, consultants and vehicles delivered (and removed) for auto extrication. For the 2016/17 FY \$4,650 was budgeted. Due to several developments, this amount will need to be increased for the 2017-18 FY. These include the contract costs with the County of Sonoma for \$9,878.25 for the two Volunteer Fire Skills classes (107A &

107B) and \$8,121.76 for the two CALFIRE Wildland units delivered in the FFI Academy (which also includes two Fire 206 courses as they are run concurrently with the fire academies) for a total of \$18,000.01. To cover the costs of 7 vehicles needed for each of the extrication units in the fire academy (at \$100 each), an additional \$1400 will need to be budgeted. To address misc. costs such as the annual Air Pollution notification fee and unforeseen service or contract needs, it is recommended another \$1000 be included for a total 2017-18 request of \$20,400.01.

For the 5191 account, as a fee based service, the only identifiable cost is for the "Fit Tests" provided for our students by the County. Given a cost of approximately \$30 per student and a maximum student count of 100, \$3,000 is requested.

From a savings perspective, we continue to benefit in the 5640 category by avoiding the cost encumbered in the past from having to lease the Santa Rosa Fire Department training facility for the FFI Academies. Due to the improvements that have been made at the PSTC, we are in our fourth year of operating exclusively out of this facility which has resulted in a cumulative savings of over \$100,000.

We have also benefited from savings on 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 suspended billing for a period of three years which saved the District over \$24,000. However, now that the State has resolved this matter, we have been encumbered with the contract costs as identified above in the 5190 account description above.

It should be noted that the program continues to aggressively seek donations and grants to offset the extensive equipment needs of the Fire I Academies. For example, we were recently donated a fire engine from Sonoma Valley Fire & Rescue Authority which will allow us to retire another that has experienced mechanical problems. The Bodega Bay Fire District also recently donated 15 SCBA's and Rohnert Park approximately 1000 feet of 2-1/2" hose. If we were required to have purchased these items, the costs would be in excess of \$45,000.

I would end by speaking to the new FFI & II certification testing process and its financial implications for the program. We have been extremely fortunate to be the recipient of several CETA grants that have moved us much closer to a position to have those props necessary to operate the academy and meet the new curriculum. This included a \$24,000 grant for an compressed gas cylinder fire prop and \$38,000 for a USAR prop that will allow us to conduct the skills testing necessary for the FFII certification test.

2.1b Budget Requests

Rank	Location	SP	M	Amount	Brief Rationale
0001	Windsor	07	00	\$71,192.00	Professional Experts/Instructional Assistants, Fire Academy Coordinator, Materials Handlers
0001	Windsor	07	07	\$84,935.00	Textbooks and other instructional supplies.
0001	Windsor	07	07	\$17,800.00	4390 Account: Supplies to operate academies including: propane, burn & ventilation materials, sheetrock, smoke fluid, fire exting. agent, etc
0001	Windsor	07	07	\$13,200.00	5659 Account: Services including: fire exting service/hydro, compressor maint, Ladder testing & repairs, etc.
0001	Windsor	07	07	\$20,400.01	5190 Account to include: contracts with County & Calfire, vehicles for auto ex., and Air Permit
0001	Windsor	07	07	\$3,000.00	5191 Account to include: Fit tests costs with County (fee based)

2.2a Current Classified Positions

Position	Hr/Wk	Mo/Yr	Job Duties
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.

2.2b Current Management/Confidential Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Associate Dean of Fire Technology	40.00	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 oversees the fire academies 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.
1 RTO (Fire Academy Coordinator)	18.00	9.00	Provide the scheduling, oversight, discipline and physical resources necessary to operate the Fire Academy.
1 P/T Materials Handler (Prof. Expert)	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

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Currently, the Fire Technology Program consists of an Associate Dean of Fire Technology, a Part Time Administrative Assistant (.60FTE), a Full-time Instructor, a STNC who serves as the Fire Academy Coordinator, 40 Adjunct Faculty, 7 Recruit Training Officers and approximately 64 Professional Experts (1 of whom also serves as a Materials Handler). With this staffing, we operate 2 Fire Academies annually, a separate FFI Academy Skills Test course and on the average 22 other course sections each semester.

The key to staffing for the program lies in our ability to retain the flexibility to use STNC's (Professional Experts). This is essential as the need for personnel varies dramatically with some activities requiring very little staffing (Communications, Cause and Origin, Strategy & Tactics, ICS, PTSD, etc.) while others require intensive use (ladders, hose, Safety & Survival and especially testing activities). Whereas the use of F/T Lab Assistants could be used to meet this need, it would be a very inefficient use of resources and result in significantly higher labor costs to the District. Given the scrutiny our finances are facing with

our accreditation, this model efficiently meets our needs and avoids excessive labor costs when they are not needed. With the addition this spring of the "stand-alone" Firefighter I Certification test Class (Fire 208.4) as well as a Firefighter II stand-alone test class in the near future (Fire 208.5), use of such a staffing model will be central to meeting the needs of our program and the local fire community.

Another factor that poses a problem with the use of F/T Lab Assistants is a retirement conflict that we have already faced with several employees. Because the most qualified personnel for these positions are retired Fire Service individuals, the vast majority are PERS retirees. With all District Lab Assistants enrolled in PERS, those Fire Program STNC that have expressed interest in such a position have declined since it would require them to re-instate with PERS, resulting in an enormous loss of income.

It should be noted that with the retirement of our one F/T instructor in 2013, the instructor hired to replace him is in her third year of the tenure review process.

2.2e Classified, STNC, Management Staffing Requests

Rank	Location	SP	M	Current Title	Proposed Title	Type
0000	ALL	00	00	N/A		Unknown

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 and in their second year of Tenure Review.

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 Associate Dean of Fire Technology as the only person in the program within retirement age.

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 increasingly difficult to recruit qualified personnel for the program. This is a result of the new requirements being implemented by State Fire Training (SFT) for those staff who work in the Firefighter I Academies to be SFT trained *Skills Evaluators*. At a minimum, all *existing* staff need to complete four specialized SFT courses to meet this requirement. This will not only make it more difficult to keep existing personnel, but hire new ones. To address this challenge the program conducted special offerings of each of these courses for program staff over the last year.

The other challenge associated with this was the administrative time that was necessary to meet these requirements. In addition to hosting the courses, once completed, SFT required the Program Director to provide a cover letter for every staff member who applied to become a *Skills Evaluator*. Considerable time was also spent conducting follow-up to ensure program staff completed their applications for this position. While this is a burden we normally place on staff, because our SFT accreditation required us to have approved *Skills Evaluators* in place *prior* to conducting our testing at the end of the spring FFI Academy, many hours were spent contacting our staff to ensure they had completed this process.

The Program interviews annually to maintain our adjunct faculty pool. However, due to the time spent meeting the *Skills Evaluator* requirements, we did not have the time to do so in 2016. In this regard, it should be noted that our greatest challenge continues to remain 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, six On-line instructors have been hired only to have all but two resign once they found how laborious the approval's process is. The good news is the one hired in 2015 has completed Fire 78 on-line and is delivering it for the second semester. I am also please to report an existing Adjunct Instructor is in the process of developing Fire 73 for On-line which we anticipate it to be delivered in Fall of 2017.

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

"In-Service" students tends to 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, we purposely scaled back our fall "In-Service" offerings which was eerily clairvoyant as the 2016 fire season turned out to be the one of the largest (close behind the 2015 season). If this pattern persists, 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 Rationale 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 recent adoption of the State Fire Training (SFT) mandated certification testing process comes a need for new equipment and instructional props to administer the test. In addition, as an Accredited Regional Training Program, we are also required to deliver testing for the other certification paths offered through SFT. This includes Firefighter II (FFII) which was recently approved and we plan to offer next year. To that end, it will be necessary to obtain the props needed for that testing process which have also been included here. Please refer to the prioritized list below for our equipment/instructional aid needs.

1. SCBA Bottles: While we have been fortunate to have received generous donations of SCBA's from fire agencies, it comes with a built-in problem. For the last 20 years, most manufacturers of SCBA's have transitioned from steel and aluminum air bottles to composites for their weight savings. However, because of their design, composite bottles have a service life of 15 years. Since almost every bottle that is donated to the program already has at least 10 years of use, they very quickly become unusable. To that end, over the last few years, we have been working to replace our entire inventory of composite bottles (over 110). As a unit required to meet our accreditation with State Fire Training, it is essential these are replaced in a timely manner so this training is not interrupted.

2. Fire Hose: As an Accredited Regional Training Program through SFT, we are required to deliver Firefighter I & II training and testing activities. One of these "Core" topics is hose. Because it is almost entirely manipulative based, the hose (most of which is donated) receives an inordinate amount of wear which shortens their life span. This is compounded now that we are also conducting "stand-alone" FFI (Fire 208.4) and FFII (Fire 208.5) courses. That the majority of our hose is donated and already have considerable wear only aggravates this problem. Subsequently, it has become necessary to replace hose on a regular basis. To maintain an adequate inventory, 25 lengths of wildland hose and 15 lengths of structure hose are requested.

3. Smart Dummies: As part of our accreditation with SFT, we are required to meet the new curriculum requirements for the FFI Academy which include Structure Fire Search and Rescue Operations (Topic 5-9) and Firefighter Survival (Topic 6-1). During the delivery of these topics, students are required to demonstrate the ability to rescue victims as found in the Search and Rescue of a Victim with No Respiratory Protection (Skill 5-9.1) and the Rescue a Firefighter (Skill 5-9.2). To realistically meet the intent of these new skills, the use of interactive dummies that can be programmed to call out to rescuers and respond with voice prompts to the efforts to save them would allow us to meet the intent of these skills. It would also provide for more realistic training. To that end, three Bullex "Smart" Dummies are being requested.

4. Thermal Imaging Camera (TIC): Under the new SFT FFI curriculum that we are required to follow, there are several that require the use of a Thermal Imaging Camera (TIC). These include Structure Fire Search and Rescue Operations (Topic 5-9), Structure Fire Operations (Topic 5-10)

and Overhaul (Topic 5-14). While we were fortunate to have received one in 2012, due to the batteries reaching the end of their service life and them no longer available, our TIC does not last long enough to be used for instruction. To that end, to be able to deliver the instruction associated with the topics identified above, it will be necessary to obtain a new TIC. In addition to meeting SFT requirements, there are other benefits to obtaining a new TIC. First it has a variety of applications that allow us to conduct our Live Fire activities more safely. And because the newer model is more similar to those used by local fire agencies, it better prepares the student for the workplace.

5. Bleacher Seats: With the adoption of the new FFI curriculum the hours of lab activities has been increased significantly (over 100 hours). With this increase students spend considerable more time observing manipulative skills in the field as well as practicing them. As our class sizes have increased, we have found it difficult for all to be able to observe instruction due to their vision being obscured by other students. To alleviate this problem, portable bleachers (tip and roll) are requested to provide seating areas which can be moved around to the different instructional stations. By allowing the students to sit, it also helps to minimize fatigue and makes them more prepared for the physicality of the lesson. From a safety perspective, the bleachers will also be beneficial as they will aid in the students' recovery from activities that require more exertion.

At our Advisory meeting scheduled for April 6, 2017 a list of these items will be presented to the committee to approve in support of their purchase through the use of grant or college funds.

While these items represent a significant investment in our program, it should be added that historically, we have been very fortunate in obtaining equipment donations that have enhanced our program and greatly supplemented our equipment costs. For example, in the last year alone, we have received a variety of hand tools, ladders and extrication equipment from the San Rafael Fire Department, 15 breathing apparatus from Bodega Bay Fire, several dozen fire extinguishers (for fire extinguisher training) from Santa Rosa Fire Equipment and a fire engine from the Sonoma Valley Fire/Rescue Authority.

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	07	SCBA Air Cylinders	25	\$464.00	\$12,615.00	R.Collins	PSTC	R.Collins
0001	Windsor	01	07	Hose	40	\$137.00	\$5,850.50	R.Collins	PSTC	R.Collins
0002	Windsor	01	07	Thermal Imaging Camera (TIC)	1	\$8,980.20	\$8,980.20	R.Collins	PSTC	R.Collins
0003	Windsor	01	07	Smart Dummies	3	\$1,995.00	\$62,950.00	R.Collins	PSTC	R.Collins
0004	Windsor	01	07	Portable Bleachers	3	\$976.00	\$3,496.96	R.Collins	PSTC	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	06	07	Portable Bleachers	3	\$976.00	\$3,300.00	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	07	Urgent	PSTC	Enclosure for Fire Extinguisher pan	\$40,000.00	Concrete or cinderblock enclosure to prevent agent from contaminating soil.
0001	ALL	06	02	Urgent	PSTC	Portable Bleacher Seating	\$3,300.00	To permit adequate viewing platform for outdoor skills and resting location for student s

2.5b Analysis of Existing Facilities

2.5b Analysis of Existing Facilities

In our analysis of our existing facilities, the greatest need we have undertaken is to make those site improvements necessary to allow us to conduct all Firefighter I Academies and Firefighter I and Firefighter II certification testing at the PSTC for the long term.

Thanks to the support of the Board Facilities Committee and the Facilities /Operations Department (Fac/Ops), we have completed over a dozen improvements at the PSTC which have allowed our program to achieve this goal which is remarkable considering the corresponding changes that have also occurred with the new Firefighter I (FFI) and Firefighter II (FFII) curriculum and testing. These improvements have also allowed us to move the fire academy from the Santa Rosa Fire Department Training Tower (SRFDTT) to the PSTC four year ago and avoid the costs associated with leasing. While I am pleased to report that these efforts have saved the District in excess of \$100,000 and allowed also us to operate our program in a much more efficient and effective manner, there are two long term problems that have emerged.

The first is the limited capacity available at the PSTC to conduct all the instruction and testing necessary to meet the needs of local fire agencies that is now required as part of our accreditation with State Fire Training (SFT). There are two reasons for this. Now that we are required to deliver certification testing for all fire departments, after surveying these agencies, we have learned there will be a significant demand to provide "stand-alone" certification testing for both FFI **and** FFII. Because these rely on the availability of the facilities at the PSTC and areas shared by other programs, we have often found ourselves in conflict and had to delay or alter our instruction and testing. On several occasions, this has created inconsistencies with SFT policies which jeopardized our accreditation. While the other programs have been very cooperative and have been as flexible as possible, I have significant concerns these conflicts set a dangerous precedent and will ultimately have an adverse impact on our program.

The second is the enormous quantities of water that are used for these activities and the unsustainability of this practice given the prolonged drought California is facing (notwithstanding the current wet winter). Based on meter readings provided by the Town of Windsor, the average use of water for fire training ranges between 200,000 and 390,000 gallons for each Fire Academy and given the potential for our water use to grow with the additional testing we are required to deliver, it is estimated our use will exceed half a million gallons. This creates two problems. With the State requiring water purveyors to implement conservation measures (even in a wet year), it is only a matter of time before we are told to reduce or eliminate our use. This would prevent us from meeting our accreditation requirements and shut us down as a Regional Training Program.

One solution to this dilemma would be to use the "Pozzi" property adjacent to the PSTC to construct a 100' by 500' fire training area that utilizes a closed loop water reclamation system where water is stored in underground tanks, pumped to hydrants dedicated for hose evolutions and drains back into the tanks after the water is discharged. An area this size would allow us to conduct all of the hose evolutions required under our curriculum, eliminate the facility conflicts we are experiencing with the other programs and allow us to centralize our instruction and promote efficiency. Such a system would follow the same designs used by facilities constructed at other Fire programs throughout the state and used

successfully. Given Mr. Pozzi's strong support of the Fire Program (including an existing fire scholarship), it would also be fitting that a facility that honors his legacy be established on his former property

It would also help us meet the District's Sustainability Initiative of working to forwarding projects that minimize our impact on the environment. Given the amount the District pays for water and the proposal to address the District's structural deficit through the installation of "Graywater" systems on the Santa Rosa and Petaluma Campuses, it only make sense to implement a similar reclamation system for fire training at the PSTC for its cost savings benefits alone. Given the District spends between \$700 and \$1000 each month for the PSTC Fire Line/hydrant water bill (the Fire Line, Domestic and Irrigation/recycled waters are billed separately), the project will ultimately amortize itself and save money over the long term.

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 \$400,000 in CETA grants and \$70,000 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)* and *Stong Workforce* 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, in 2015 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:

- 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 2017) 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 range from the 20's to the early 60's.

It is also worth noting that we are working with our F/T faculty member to conduct outreach to female students in the local school districts.

3.3 Cultivate a Healthy Organization

3.3 Cultivate a Healthy Organization

One of the most effect 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 picnics and holiday parties with Classified and Managers

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 are well know because of the intimate nature of the 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 deliver.

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 2016
- The Program Director completing an EMT refresher course to maintain his certification and maintain an EMT presence in the office during business hours
- 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 have a shade structure erected (T-8, 3395 (d)1). In 2016, through the generosity of Facilities, we obtained an ice machine that has greatly promoted cooling and hydration of PSTC students and also benefited our *Heat Illness Plan*.

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 2016
- Completed the District's Forklift Training Course in July
- Completed FEMA's IS-100HE On-line Course
- Completed FEMA's LO-363 Multi-Hazard Emergency Planning for Higher Education course
- 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.

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).
- With the acquisition of an ice machine, the program now requires the students to obtain 1/2 gallon water containers for their hydration and has eliminated the need to purchase bottled water which create enormous environmental problems (for a summary of this go to: <http://greenliving.nationalgeographic.com/water-bottle-pollution-2947.html>)
- We have transitioned to a paperless, on-line final testing process.
- Last year we have begun the use of EVALs.net which has provided a platform to post handouts electronically rather than printing. Whereas, the program has the ability to deliver all tests electronically, we are pursuing that option this year.

However, perhaps the greatest challenge in aligning our program with the District's Sustainability Initiative pertains to the use of water to meet the training requirements. Given the enormous quantities of water that are used for these activities and the unsustainability of this practice with the prolonged drought California is facing (notwithstanding the current wet winter). Based on meter readings provided by the Town of Windsor, the average use of water for fire training ranges between 200,000 and 390,000 gallons for each Fire Academy and given the potential for our water use to grow with the additional testing we are required to deliver, it is estimated our use will exceed half a million gallons each semester. This creates two problems. With the State requiring water purveyors to implement conservation measures (even in a wet year), it is only a matter of time before we are told to reduce or eliminate our use. This would prevent us from meeting the SFT FFI & II curriculum and place us in violation of our accreditation which would essentially shut us down as a Regional Training Program.

One solution to this dilemma would be to use the "Pozzi" property adjacent to the PSTC to construct a 100' by 500' fire training area that utilizes a closed loop system where water is stored in underground tanks, pumped to hydrants dedicated for training activities and drains back into the tanks after the water is discharged. An area this size would allow us to conduct all of the hose evolutions covered under our curriculum, would eliminate the facility conflicts we are experiencing with the other programs and allow us to centralize our instruction and promote efficiency. Such a system would follow the same designs used by facilities constructed and used successfully by CC Fire programs throughout the State. Given Mr. Pozzi's strong support of the Fire Program (including an existing fire scholarship), it would also be fitting that a facility that honors his legacy be established on his former property

It would also help us meet the District's Sustainability Initiative of working to forwarding projects that minimize our impact on the environment. Given the amount the District pays for water and the proposal to address the District's structural deficit through the installation of "Graywater" systems on the Santa Rosa and Petaluma Campuses, it only makes sense to implement a similar reclamation system for fire training at the PSTC for its cost savings benefits alone. Given the District spends between \$700 and \$1000 each month for these activities (the Fire Line, Domestic and Irrigation/recycled waters are billed separately), the project will ultimately amortize itself and save money over the long term.

Please note, much of this narrative can also be found in section 2.5b (Analysis of Existing Facilities)

4.1a Course Student Learning Outcomes Assessment

4.1a Course Level Student Learning Outcomes (SLOs)

The Fire Program is currently going through an enormous transition with its course offerings that have had a significant impact on the assessments of our SLO's. As shared in previous PRPPs, over the last few years, State Fire Training (SFT), our accrediting agency has undergone a process to "re-align" all of its courses with the applicable National Fire Protection Association (NFPA) standards. This has resulted in re-writing the curriculum of eight existing courses and developing new curriculum for another seven. While prior to these changes, all courses possessed and had assessed SLO's, when these changes became effective on January, 1 2017, it obviously triggered the need to assess the SLO's associated with the new or updated courses. This will result in Table 4.1c appearing very different from the one presented in last year's PRPP.

It should be noted that as the assessments are completed on these new SFT courses, the information collected will be shared with SFT. The purpose being to identify any potential weaknesses in their curriculum or delivery so as to determine if the courses are suitable for delivery in the on-line or hybrid formats.

It should be noted that one of the benefits of completing our original SLO assessments was to help prepare our program for our accreditation with State Fire Training which was completed in May of 2015 and resulted in a unanimous affirmative vote by the State Board of Fire Services. This accreditation will be good until 2020.

One outcome of our assessments was we learned that in several classes 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.

4.1b Program Student Learning Outcomes Assessment

4.1b Program Level Student Learning Outcomes (SLOs)

In the Fire Technology program, there are three degree's/certificates that require assessment. They include:

- Fire Technology Degree
- Fire Technology Certificate

FIRE 270.1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 270.2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 270.3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 271.1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 271.2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 272		X	X	X	X		X	X	X	X	X	X	X	X	X	X
FIRE 273.1	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
FIRE 273.2	X	X	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

4.2b Narrative (Optional)

4.2b Narrative (Optional)

As a program that relies heavily on Adjuncts for the delivery of instruction, the burden of assessing our SLO's for this round will fall primarily on them. For courses that follow an academy type format using multiple instructors, the SLO's for those classes will be delivered by the Program Director. The "Core" classes required for a Certificate or Degree will be assessed by the program's one F/T instructor.

As can be seen from the table below, a timetable for each course's SLO assessments has been prepared with the responsible party identified. Given most of these individuals were involved in assessments during the last SLO cycle, it is anticipated the process will be more expeditious this time around.

Fire Program 6-Year Cycle SLO Assessment Plan

Course	SLOs Last Assessed	Participating Faculty	Semester Initiated or to Be Initiated	Semester Completed	Comments	Year of Next Assessment
Fire 56	N/A		N/A		Not Offered	
Fire 61	S2014	Stan Fernandez			Currently Not Offered	Spring 2020
Fire 71	S2013	Jeff Allen & Eleanor Ratliff	F2017			Spring 2022
Fire 72	S2013	Tzahal Avraham	F2017			Spring 2022
Fire 73	S2013	Eleanor Ratliff	F2017			Spring 2022
Fire 74	F2013	Eleanor Ratliff	S2018			Fall 2023
Fire 76	F2013	Eleanor Ratliff	S2018			Fall 2023
Fire 77	F2013	Eleanor Ratliff Linda Collister	S2018			Fall 2023
Fire 78	S2013	Darren Hall	F2017			Spring 2022
Fire 107A	F2014	Dan Bull	F2017		Contract w/ So. Co. Fire	Spring 2022
Fire 107B	S2016	Dan Bull	S2018		Contract w/ So. Co. Fire	Fall 2023
Fire 273.1	N/A	K.Sebastiani	S2017		New Class S2017	Fall 2022

Fire 273.2	N/A	K Sebastiani	F2017		New Class F2017	Spring 2022
Fire 273.3	N/A	K Sebastiani	S2018?		Being written S2017	
Fire 272	N/A	Paula Dueweke	S2017		New Class S2017	Fall 2022
Fire 202	X2016	Curt Newsom	X2018			X2023
Fire 271.1	N/A	Jack Piccinini	F2017		New Class F2017	Spring 2023
Fire 271.2	N/A	Jack Piccinini	S2018		New Class S2018	Fall 2024
Fire 270.1	N/A	Jack Piccinini	S2017		New Class S2017	Fall 2022
Fire 270.2	N/A	Kim Thompson	F2017		New Class F2017	Spring 2023
Fire 270.3	N/A	Eleanor Ratliff	S2018		New Class S2018	Fall 2024
Fire 206	S2014	Randy Collins	F2017		Contract w/ CalFire	Spring 2023
Fire 208	S2014	Sean Grinnell	X2017			Fall 2022
Fire 208.1	S2013	Randy Collins	F2017			Spring 2023
Fire 219	N/A	M Turbeville	S2017		New Class S2017	Spring 2022
Fire 212	N/A		N/A		Not Offered	
Fire 241	S2014	Sean Grinnell	F2017			Spring 2022
Fire 258	2,3,4,5	Sean Grinnell	S2017			Fall 2023
Fire 708	S2014	Jeff Snow			Course used only by EMC	

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 a 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.

Of the procedures that need to be developed, over the last year we have finalized and put into practice those needed to conduct the FFI Academy as well as those need to implement a "stand-alone" FFI test process. These include Course Outline(s) of Record (COR), syllabi, schedules and testing procedures.

For staff training we have either personally delivered or hosted five classes (for a total of 136 hours of instruction) to assist them meet the new training requirements implemented by SFT. It is estimated each staff member involved in the academy attended 24 hours of instruction to meet these requirements and become SFT a *Certified Skills Evaluators*. Considerable time was also spent by the Program Director and

Admin Assistant following up with staff to ensure they completed the process needed to obtain their certification from SFT (and allow us to continue to maintain compliance with the terms of our accreditation).

It should also be noted that since the submission of the last PRPP, the purchase and/or construction of close to \$300,000 of instructional aids (props) have been completed at the PSTC which were managed by the Program Director. This has allowed us to be the second accredited Fire Academy in the State to deliver these courses and testing services and the first in the State to deliver "Stand-Alone" Firefighter I certification testing.

Another measure of non-academic services we provide is reflected by our ability to offer a series of non-college related 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.

I am also pleased to share that effective F2017, the SFT Fire Control 3B will be added to the list of those certificates the students obtain in the FFI Academy

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:

Fall 2016 Schedule

Fire 71 - 2 sections (W-130-430pm & On-line - 1 eliminated due to course reductions) 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 7pm-10pm)
Fire 77 - 1 section (W 7-10pm)
Fire 78 – 1 section (on-line)
Fire 107A - 1 section (W 7-10, Sat 8-5)
Fire 201- 1 section (F 8-5)
Fire 200.3 – 1 section (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 241 - 1 section (F 6-10, Sat, Sun 8-5)
Fire 708 – 1 section (by appointment)
Fire 991 - 3 to 5 sections (by appointment)

Spring 2017 Schedule:

Fire 71 – 3 sections (M 7-10pm, W 130-430pm, On-line) Fire 72 – 2 sections (TH 7-10pm and On-line)
Fire 73 – 1 section (T 130-430pm) Fire 74 – 2 sections (M 7-10pm and On-line)
– 1 section (T 7-10pm) Fire 76 – 1 section (W 7-10pm)
Fire 78 – 1 section (On-line) Fire 107B - 1 section (W 7-10, Sat 8-5)
section (F 6-10pm & Sat/Sun 8-5) Fire 273.1 – 1 section (F 6-10pm & Sat/Sun 8-5)
8:30am- 5 pm) Fire 219 - 1 section (F 6-10pm & Sat/Sun 8-5)
10pm & Sat/Sun 8-5) Fire 272 - 1 section (F 6-10pm & Sat/Sun 8-5)
Fire 273.1 - 1 section (F 6-10pm, Sat/Sun 8-5) Fire 258 – 1 section (F 6-10pm & Sat/Sun 8-5)
206 – 2 sections (M-F 8-5) Fire 206 – 2 sections (2 SAT & SUN 8AM-5PM)
208 – 2 sections (2 SAT & SUN 8AM-5PM) Fire 208.1 – 1 section (M-F 8am-5pm)
– 1 section (M-F 8am-5pm) Fire 208.4 - 1 section (M-F 8-5)
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)

appointment)
appointment

Fire 991 - 3 to 5 sections by

Summer 2017 Schedule

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

Fire 71 – 1
Fire 708 - 1
Fire 991 - 2-3
Fire 202 - 1
Fire 78 - 1 section

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 272, 273.1 & 241 & 258 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 and Fire 78 exclusively on-line. We also have an Adjunct developing Fire 73 to be taught on line with a target of Spring 2018. This leaves Fire 76 as the last "core" class to deliver in an on-line format. Finding new instructors to develop and instruct On-Line courses continues to be a challenge and as identified in section 3, it is one of our goals to make all of our core courses available on-line in order to remain competitive.

In terms of our ability to serve our students, I feel we do a decent job balancing the hours, location and format. Two years 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	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	14	160	132	12	160	125	7	129	158	13	129

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	33	183	220	33	151	224	29	181	223	33	155

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	79	339	371	41	168	373	69	209	319	74	226

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	126	682	723	86	479	722	105	519	700	120	510

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	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	0.0%	71.4%	62.4%	0.0%	89.4%	61.2%	0.0%	72.9%	69%	0.0%	87.4%

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	73.3%	73.2%	77.5%	73.3%	64.6%	77.5%	64.4%	66.2%	77.5%	73.3%	75.6%

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	88.6%	74.3%	82.5%	55%	65.8%	76.3%	85.7%	80.3%	77.2%	70.5%	81.6%

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	82.6%	73.3%	77.1%	64.7%	71.5%	73.9%	77.4%	73.1%	75.4%	71.3%	80.8%

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	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	0.0	37.5	35.3	0.0	50.7	34.7	0.0	41.3	36.3	0.0	39.3

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	33.0	30.5	27.5	33.0	25.8	28.0	29.0	26.0	28.0	33.0	31.0

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	31.0	21.4	20.2	22	19.8	20.6	30.0	23.6	21.8	24.7	24.4

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Tech (FIRE)	31.7	26.4	23.8	27.5	27.4	24.1	29.7	27.3	25.9	26.8	29.3

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)		X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
	FTES	0.93	16.20	12.77	0.90	16.10	12.67	0.53	12.83	15.40	0.60	12.20
	FTEF	0.00	0.80	0.60	0.00	0.70	0.60	0.00	0.60	0.80	0.00	0.60
	Ratio	0.00	20.25	21.28	0.00	23.00	21.11	0.00	21.39	19.25	0.00	20.33

Petaluma Campus (Includes Rohnert Park and Sonoma)

Fire Tech (FIRE)		X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
	FTES	3.55	17.43	20.81	3.55	14.39	21.24	3.12	16.80	20.85	3.55	15.50
	FTEF	0.21	1.15	1.46	0.21	1.08	1.45	0.21	1.25	1.45	0.21	1.00
	Ratio	16.91	15.17	14.26	16.91	13.34	14.70	14.86	13.49	14.42	16.91	15.50

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

Fire Tech (FIRE)		X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
	FTES	2.10	47.93	70.24	1.20	35.69	67.28	2.19	42.15	55.42	2.56	47.42
	FTEF	0.03	1.40	3.29	0.05	1.63	4.25	0.03	1.98	3.05	0.19	1.34
	Ratio	82.50	34.26	21.36	32.83	21.84	15.84	86.10	21.33	18.15	13.62	35.50

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

Fire Tech (FIRE)		X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
	FTES	6.57	81.55	103.81	5.95	66.18	101.18	5.84	71.79	91.67	6.71	75.12
	FTEF	0.23	3.35	5.35	0.26	3.41	6.29	0.23	3.82	5.30	0.40	2.94
	Ratio	27.97	24.36	19.41	23.29	19.39	16.08	24.83	18.78	17.30	16.87	25.59

5.4 Curriculum Currency

5.4 Curriculum Currency (annual)

With extensive efforts made over the last few years, almost all of our curriculum has been updated and is current. There are however a few exceptions. They include:

- Fire 77 which follows the curriculum of the California Specialized Training Institute (CSTI) Hazardous Materials for First Responders course. Because CSTI is in the middle of re-writing their curriculum (of which two of the Fire Program's Instructors are participating), we are deferring updating ours until CSTI has completed their process (for obvious reasons).
- Fire 61 which is currently not being taught and will be inactivated.

It is important to note that a number of State Fire Training (SFT) "In-service" classes did not have their curriculum updated because they were retired by SFT on Dec 31, 2016. If not already inactivated, they soon will be and include the following courses:

- Fire 200.1,
- Fire 200.2
- Fire 200.3
- Fire 201
- Fire 203
- Fire 204A
- Fire 204B
- Fire 204C
- Fire 209

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 2016 are 23, up from 13 in 2015. Firefighter I (FFI) Academy Certificates awarded in 2016 are 67. This is down approximately 10 certs from 2015. It should be noted that due to the necessity to implement the new FFI curriculum, the hours of the fire academy increased over 100 hours. Combined with the need to also offer "stand-alone" FFI testing, time and facility constraints required us to reduce the number of academies we offer in the spring from two to one. Even though we have increased the maximum size of our academies from 34 to 40, it has not been enough to totally off-set this reduction.

Major/Degrees (AS Degree in Fire Technology) awarded in 2016 are 28 , down slightly from 31 in 2015.

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	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	71.4%	71.9%	71.2%	100%	73.1%	69.4%	100%	66.2%	69%	0%	73.6%

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	97%	84.2%	86.4%	90.6%	83.1%	83.9%	100.0%	84.6%	87.5%	0%	81.3%

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	90.3%	89%	91.2%	90.9%	87.4%	92.7%	90.2%	79.7%	95.4%	86.8%	83.4%

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	89.9%	83.4%	86%	92.4%	81.2%	85.9%	93.8%	78.1%	86.8%	80.8%	80.1%

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	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	71.4%	69.4%	70.5%	100.0%	70%	67.7%	100%	63.1%	65.2%	0.0%	72.8%

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	97%	80.3%	80.9%	90.6%	78.6%	78.9%	100%	80.8%	87.1%	0.0%	77.4%

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	88.7%	87.7%	90.6%	90.9%	85.5%	92.4%	90.2%	79.7%	95.4%	86.8%	83.4%

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	89%	81%	83.9%	92.4%	78%	84%	93.8%	76.0%	85.7%	80.8%	78.6%

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	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	3.00	2.93	3.23	3.41	2.93	2.96	3.56	2.74	2.93	0.00	3.24

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	3.13	2.69	2.47	3.58	2.08	2.63	3.79	2.46	2.66	0.00	2.94

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	2.66	2.19	2.25	0.00	2.51	2.12	0.00	2.71	2.11	0.00	3.10

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

Discipline	X2013	F2013	S2014	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	2.97	2.49	2.45	2.78	2.52	2.37	2.58	2.65	2.40	0.00	3.08

5.7 Student Access

5.7 Student Access (every third year)

5.7a Ethnicity

The ethnicity reflected in Fire Tech (FT) tends to trend to match 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 66% (down 8% from 2015). The second largest group is the Latino at almost

18% which although is shy of the 24% of the District, is up almost 3% from 2015 and over the long term, up from 11% in 2012. Otherwise, our other ethnicity reflect those occurring in the general student population.

ALL Locations (Combined totals from ALL locations in the District - Source 2016 Fact Book)

Fire Tech (FIRE)	Ethnicity	2013-14	Percent	2014-15	Percent	2015-16	Percent	2016-17	Percent
	White	1016	71.9%	884	74.5%	899	74.2%	762	66.6%
	Asian	17	1.2%	9	0.8%	6	0.5%	35	3.1%
	Black	16	1.1%	12	1.0%	20	1.7%	18	1.6%
	Hispanic	245	17.3%	207	17.4%	186	15.3%	205	17.9%
	Native American	10	0.7%	6	0.5%	6	0.5%	4	0.3%
	Pacific Islander	6	0.4%	5	0.4%	10	0.8%	16	1.4%
	Filipino	4	0.3%	3	0.3%	4	0.3%	4	0.3%
	Other Non-White	56	4.0%	59	5.0%	54	4.5%	51	4.5%
	Decline to state	44	3.1%	2	0.2%	27	2.2%	49	4.3%
	ALL Ethnicities	1414	100.0%	1187	100.0%	1212	100.0%	1144	100.0%

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 86.7% of the population (down slightly from 88% in 2015). The number of females rose almost 2 percentage points to 12.1% (from 10.7% in 2015). 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. The good news is although the number of female students is remains small, the trend reflects an increase of 2% a year since 2013.

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	2013-14	Percent	2014-15	Percent	2015-16	Percent	2016-17	Percent
	Male	1266	89.5%	1077	90.7%	1065	87.9%	992	86.7%
	Female	107	7.6%	103	8.7%	130	10.7%	138	12.1%
	Unknown	41	2.9%	7	0.6%	17	1.4%	14	1.2%
	ALL Genders	1414	100.0%	1187	100.0%	1212	100.0%	1144	100.0%

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	2013-14	Percent	2014-15	Percent	2015-16	Percent	2016-17	Percent
	0 thru 18	138	9.8%	130	11%	88	7.3%	112	9.8%
	19 and 20	278	19.7%	197	16.6%	194	16.0%	195	17.0%
	21 thru 25	463	32.7%	410	34.5%	396	32.7%	389	34.0%
	26 thru 30	259	18.3%	230	19.4%	260	21.5%	238	20.8%
	31 thru 35	139	9.8%	126	10.6%	137	11.3%	110	9.6%
	36 thru 40	60	4.2%	48	4.0%	57	4.7%	41	3.6%
	41 thru 45	44	3.1%	21	1.8%	42	3.5%	23	2.0%
	46 thru 50	19	1.3%	7	0.6%	19	1.6%	19	1.7%
	51 thru 60	12	0.8%	15	1.3%	18	1.5%	17	1.5%

	61 plus	2	0.1%	3	0.3%	1	0.1%	0	0.0%
	ALL Ages	1596	100.0%	1397	100.0%	1438	100.0%	1246	100.0%

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 and in 2017 will also be offering Fire 78 on-line. We also we offer in the Fall and Spring semesters such electives as, Fire Command, Training Instructor, Fire Inspection/Investigation and Driver Operator for students who are currently employed with fire agencies. This is important as it allows employed firefighters to obtain their State Fire Training (SFT) Company Officer Certificate within a one year period.

The total number of sections offered is 20 for the Spring semester and 16 for the Fall which represents a reduction over the last few years. The main reason for this is with the retirement of the SFT Fire Officer certification track on Dec 31, 2016, the eight courses required for that certification were also retired (and either terminated or inactivated in the Districts curriculum system). While the program has begun offering the eight courses required for the SFT *Company* Officer certification track, because this certification is new, there will undoubtedly be a lull before local firefighters begin to enroll in it.

Three 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 which has been completed over the last year. They include:

- 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

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 both Firefighter I and 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. To that end, since the completion of the last PRPP, the program has developed and obtained approval to begin offering the following independent testing classes:

- Fire 208.4 Firefighter I Capstone Test Class
- Fire 208.5 Firefighter II Capstone Test Class

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. Now in its fourth year of delivery, it has also become a popular training platform for 6 other Fire Districts in the County as well as the Federal Fire Department at the Two Rock Coast Guard base in Petaluma.

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.

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 the Fire Tech Director has served as a member of their Advisory Committee for Napa High School's ROP program for the last 4 years, I am sorry to report the program was recently terminated due to lack of funding. However, we are beginning to work with a program established in late 2016 in the Konocti School District in Lake County and has provide training gear and a destination for their field trips.

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), Brandman University (www.brandman.edu/irvine), Southern Illinois University (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 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	Windsor	01	07	Finish those site improvements needed to operate academy at the PSTC	Complete interior gas prop project, install fire extinguisher prop, construct structure collapse prop	July 1, 2017	All projects complete except Structure Collapse (USAR) prop (for which funding has been secured) have been completed. The USAR prop will be completed S2017
0002	Windsor	02	07	Develop and obtain approvals for FFII Test class	Write curriculum, obtain approvals and instructional props	July 2017	Course has been approved, funding for props has been obtained and all but the USAR prop (see above) are in place.
0003	Windsor	08	07	Develop "Stand Alone" FFI Test class to serve local Fire Agencies and promote to our constituent groups	Write curriculum, obtain CC approval, develop syllabus, promote to fire agencies	March 31, 2017	Curriculum written and course approved, final draft of syllabus complete, agency promotional visits scheduled for March 2017
0004	Windsor	08	07	During each calendar year, continue to offer all courses required for State Fire Officer Certificate	Obtain CC approval for all updated State Fire Training (SFT) courses	Dec 31, 2016	Curriculum for all new SFT courses has been written, approved and course offerings have begun in S2017
0005	Windsor	04	06	Fully implement EVAL.net (admin functions) into FFI Academy	Train Program AA to the program and its implementation	Dec 31, 2017	Staff have been trained and all functions except delivery of quizzes have been implemented
0006	Windsor	08	06	Expand offerings of Volunteer Skills with other So. Co. Fire Agencies	Begin program to promote with Fire Chief's Association	Continuous	Promotion continues to be successful as enrollment continues to grow amongst other fire agencies (besides Sonoma County)
0007	ALL	08	06	Hire an additional Adjunct to develop On-line course(s)	Query existing Adjunct pool & other Fire Tech Directors of recruitment, conduct interviews, make selection, complete background process	Continuous	One has been hired to deliver Fire 78 which is now occurring, a second is learning Fure 73 on-line by S2018. This leaves only Fire 76 as our only non-on-line "Core" course offering.
0008	ALL	08	05	Implement Intro to Public Safety concurrent enrollment class at El Molino High	Write curriculum, obtain approvals, obtain funding for instructor salaries from CTE	Continuous	Find template curriculum to aid in developing class

6.2a Program/Unit Conclusions

Location	Program/Unit Conclusions
Windsor	<p>In the analysis performed of our program, we examined the demand for existing classes, accreditation changes as well as solicited feedback from our students, our Advisory Committee and local fire agencies. Based on their input, we have concluded that the demands on our program will be centered in the following areas:</p> <ul style="list-style-type: none"> - Transitioning the Firefighter I Academy to the updated curriculum to also include certification testing. This has been accomplished and we are in our 3rd Academy using it. - Implementing a "stand-alone" Firefighter I (FFI) Certification Test class to provide testing access for firefighters trained by outside agencies. We have obtained the approvals necessary to offer this class and will deliver it for the first time in S2017. - Developing and offering a "stand alone" Firefighter II Certification Test class to similarly allow staff trained by outside agencies to take the cert. test. We have also obtained the approvals for this class and plan to begin offerings once we receive permission to deliver from State Fire Training (SFT) anticipated for S2018. - Offering the new SFT Company Officer certification courses of which all eight have been approved and we have begun their offerings this (S2017) semester. <p>It goes without saying that the current year has been significantly impacted by these changes and is quite different from our past schedules. Case in point, to meet the demand of certification testing and lack of capacity at the PSTC, it has required us to eliminate the second Fire Academy we have historically run concurrently in the spring semester and replaced it with "stand alone" certification testing classes.</p> <p>The greatest challenge to Implementing these programs will be obtaining the resources (both personnel and facilities) to do so. While we have been extremely fortunate for the assistance we have received from our Facilities Dept. as well as the recipient of grants which have allowed us to obtain and/or build the props need for the academies, we have run out of the room at the PSTC to situate them. Without the space needed for these props we will be unable to deliver the course work and testing that is required for local agencies which will create an enormous problem in our ability to meet industry needs.</p> <p>Another concern is the implications of long term drought on the program which has created two problems. The first relates to the quantity of water that must be used to meet academy curricula. Given the hose and fire stream evolutions we are required to perform, over 200,000 gallons of water are used for each academy and water purveyors have been given mandates to reduce water use, it is only a matter of time before our use is curtailed which would prevent us from meeting the State curriculum requirements and jeopardize our accreditation. The solution to this problem is to construct training grounds that collect the water in underground tanks for reuse as described in section 2.5b.</p> <p>The second pertains to many of our instructional staff who work as firefighters. As they become committed to major incidents and as fire season expands into November, their availability is jeopardized and without sufficient staff, we may have to cancel the academy. An argument can be made for exclusively using retired staff to alleviate this problem but this would also create an imbalance of instruction and with firefighting tactics changing significantly, this would be detrimental to instruction and the academy.</p>

6.2b PRPP Editor Feedback - Optional

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6.3a Annual Unit Plan

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
0001	Windsor	05	03	Construct Fire Training area that reclaims water used in hose evolutions and recycles for future use.	Obtain property adjacent to PSTC, incorporate 500' x 100' training area into prospective site designs, dedicate funds, implement project timeline, prepare engineered drawings, develop RFB, award contract, begin construction	Obtain approval Dec 2017	Admin approval, potential support of Measure H Committee (if said funds involved) & Leigh Sata, contracting with Kwok for site plans and engineered drawings, development of RFB
0002	Windsor	02	06	Implement "Stand alone" Firefighter II (FFII) test class	Finish construction of USAR prop and develop syllabus	Dec 31, 2017	Funding for props (grants)
0003	Windsor	08	01	Conduct second round of SLO Assessments for Fire Courses	Contact instruction staff and share Project SLO guidance & forms, follow-up every few weeks	Dec 31, 2017	Support (as needed from) SLO Coordinator
0004	Windsor	04	06	Fully implement EVALs.net (admin functions) intoFFI Academy	Train Program AA to the program and its implementation	Dec 31, 2017	Provide staff the time to learn program
0005	ALL	08	06	Promote "Stand Alone" Firefighter I (FFI) test class with local fire agencies.	Complete course syllabus, confirm accuracy with State Fire Training, print syllabus/Procedures Manual/Test Sheets, promote at Chief's & Training Officer meetings in Marin, Sonoma, Napa & Mendocino Counties	July 1, 2017	Provide staff to conduct outreach to local fire agencies
0006	ALL	08	06	Hire an additional Adjunct to develop On-line course(s)	Query existing Adjunct pool & other Fire Tech Directors of recruitment, conduct interviews, make selection, complete background process	Continuous	Admin approval & HR support. Because on-line courses generally have higher enrollment, it will improve enrollment efficiency and enhance revenue
0007	ALL	08	05	Implement Intro to Public Safety concurrent enrollment class at El Molino High	Write curriculum, obtain approvals, obtain funding for instructor salaries from CTE	Dec 31, 2017	Find template curriculum to aid in developing class