

Santa Rosa Junior College

Program Resource Planning Process

Fire Technology 2018

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 is designed to promote the opportunity for intellectual, social and occupational growth by providing:

- 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 federally mandated certificate programs; and
- 3) In service training programs which provide current and professional course offerings to meet the demands 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 (SFT) including SFT, CALFIRE, International fire Service Accreditation Congress (IFSAC) and Pro Board Fire Service Professional Qualifications System (Pro-Board) 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 Chancellor's Office C-ID descriptors, 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.
- 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. For the long term, we are also looking to the future and the challenges of meeting the curriculum requirements of fire training evolutions that requires large quantities of water and exploring

the possibility of developing a facility that reclaims the water (please also refer to the comments below and in section 2.5b)

- We strongly support continuous learning. As an example, our Admin. Assistant is involved in projects that enhance her knowledge of fire training including working on a catalogue of California fire training programs and developing course descriptors of those courses required for the SFT Company Officer certificate. The Director also serves on the SFT's Statewide Education Advisory Committee (STEAC) and is President of the California Fire Technology Director's Association (CFTDA).

- As a CTE 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 conducts presentations on the program to public groups and is a member of the Healdsburg Kiwanis clubs.

- All offered coursework has been assessed and where noted, self-improvements implemented. We have also initiated our second round of assessments. Through a feedback process we conduct every semester 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), 49 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 WE program has also recently been expanded to allow non-FFI academy students with an interest in Fire Prevention to be placed in fire dept. prevention bureau's to learn how to become Fire Inspectors.

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, our program spans both the Degree/Certificate and CTE spectrum. For reasons of simplicity, I will speak to each separately.

In our Certificate/Degree side of our programs, we have seen two trends emerge. One involves the development of a partnership with local fire agencies to expand the Work Experience program to allow students who have completed the Fire Prevention (Fire 73) and Protection System (Fire 74) courses to perform internships in their fire prevention bureau's. The second is the continued growth of interest in our on-line degree/Certificate courses. Much of this interest can be attributed to the efforts we have made to offer the six "core" course on-line of which effective Fall 2018, all will be available.

In contrast to the Certificate/Degree, the CTE part of our program has become more dynamic and transcends all of the categories covered under this section including our labor market, accreditation (with State Fire Training - SFT), as well as anticipated changes in the regulatory, social and business environments.

In terms of the labor market, over the last few years we have seen a steady increase in the demand for firefighters. This can be attributed to several factors. The first is as drought and climate change conditions have become more pronounced, fire seasons have grown much longer (in many parts of the State year round) resulting in CALFIRE increasing their staffing and hiring of seasonal firefighters which includes almost 40% of our Firefighter I Academy graduates.

Another impact to the labor market has been an increase in retirements of "Baby Boomers" 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.

Although not directly related to the labor market, another trend we have begun to experience is the growth in interest of our Volunteer Fire Skills program. This can be attributed to two factors. First, as most small departments continue to be fiscally challenged, they are finding it increasingly difficult to train their staff and are using the program as a cost effective alternative. The second is due to a surge of interest in the general public to become a firefighter following the devastating fires of October 2017. To accomodate these individuals and at the request of our Fire Advisory committee, we are working with curriculum to make the enrollment criteria more flexible.

From a licensing/accreditation perspective, we are beginning to experience a trend where as an Accredited Regional Training Program (ARTP) through SFT, we are beginning to find ourselves being subject to more scrutiny. This is not a reflection on our program, but rather on the accreditation SFT themselves have recently obtained from the two accreditation entities the International Fire Service Accreditation Congress (IFSAC) and the Pro Board Professional Qualification System (Pro Board). While in the past, SFT would usually only visit an agency every six years when their reaccreditation was due, under the terms of their agreements with IFSAC and Pro Board, they are required to conduct annual audits of ARTP's and whereas we were one of the first insitutions to implement the new curriculum, we were also one of the first to be audited which occurred last December.

On a more global level, the biggest trend (and threat) we face is climate change and the increased frequency of drought. In order to deliver our program, a variety of hose evolutions and pumping operations must be conducted which use enormous quantities of water (between 250,000 and 750,000 gallons a semester) depending upon the size and frequency of classes. Not only does this use have an associated monetary cost, but it is contrary to the mission of the College to support environmental stewardship and our goal of *Establishing a Strong Culture of Sustainability*. The biggest concern lies in the fact that as the drought persists, it will only be a matter of time before we will have to curtail our water use which will make it impossible to meet the curriculum requirements of the Fire Academy (and other related courses) and subsequently the terms of our SFT accreditation. Under a worst case scenario, this would result in the revocation of our accreditation and the end of our program. A solution to this problem would be to fund the construction of a hose evolution area which reclaims any water use (not unlike the greywater system proposed for the Santa Rosa campus). Such systems have also been installed at a number of Colleges around the State and have even amortized themselves creating other benefits. More will be addressed on this topic in section 2.5b.

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).

Of the 4000 accounts the one most central to the operation of the academy 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 2016 these expenditures experienced an increase as we introduced new props and materials required by the implementation of the 2013 Firefighter I (FFI) curriculum. Now that we have the experience of completing five academies using it, we have found the quantity of materials required has roughly doubled. To that end, we would ask \$17,800 be budgeted for 2018-19 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 5190 account addresses costs associated with services including contracts, permits, consultants and vehicles delivered (and removed) for auto extrication. Historically \$4,650 was budgeted but several years ago it became apparent this was insufficient. This was because of the contract costs with the County of Sonoma for \$9,878.25 for the two Volunteer Fire Skills classes (107.1 & 107.2) for \$9,878.25 and \$9,258.81 for the two CALFIRE Wildland units delivered in the FFI Academy (which includes two Fire 206 courses run concurrently) with the fire academies for a total of \$19,137.06. 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 fees and unforeseen service or contract needs, it is recommended another \$2000 be included for a total 2018-19 request of \$22,537.

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 increased as we implemented the new FFI curriculum which doubled the skill hours, subsequently increasing wear on our equipment and ultimately repair costs.

While \$6,600 previously was sufficient to fund this category, since budgeted has consistently exceeded this by over 100%, I would request \$13,200 for 2018/19.

As a fee based service, for the 5191 account, 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 fifth year of operating here which has resulted in a cumulative savings of over \$125,000.

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 and have a long history of obtaining equipment for no costs. For example, over the last two years we have received a fire engine from Sonoma Valley Fire & Rescue Authority, 15 SCBA's from the Bodega Bay Fire District and 1000 feet of hose from Rohnert Park DPS. Had we been required to purchase these items independently, 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	07	\$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	\$22,537.00	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	<p>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.</p> <p>Administrative Assistant III provides administrative support for payroll utilizing .40 FTE.</p>

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 reviewing, supervising, evaluating and documentation of discipline specific subject matter and related skills during testing under the supervision of Lead Evaluator.
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, exercise apparatus and power tools. refill air bottles. deliver instructional supplies, build/re-build instructional props, repair hose and SCBA's, and other equipment

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 (and in particular the Firefighter I Academy) 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 certification testing). Whereas the use of F/T Lab Assistants could be used to meet this need, it

would be a 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 minimizes costs. With the addition 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 from the fire service, the vast majority are PERS retirees. Because all District Lab Assistants are 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 a significant 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 forth (and final) 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 forth 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

At this time, only the Associate Dean of Fire Technology is 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 make it not only 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 and will be doing so again in 2018-19.

The Program interviews annually to maintain our adjunct faculty pool and did so most recently in Spring of 2017. 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 which has resulted in some failures. However, I am pleased to report that due to our efforts to convince existing instructors to learn CANVAS, effective Fall 2018, all of the core courses required for a Fire Tech degree/Certificate will be available on-line.

While we usually can provide an adequate pool of Adjuncts and Professional Experts, a growing challenge we face is the availability of staff during fire season. As drought conditions persist and fire season extends into late November and early December, the availability of instructors as well "In Service" students tends to diminish. This situation was particularly acute last Fall during the October fire siege when virtually every able firefighter (representing the vast majority of our staff) was committed to the incident. What saved us from canceling the academy was the comprehensive campus closure although to meet the hours mandated by SFT, required us to schedule additional class time later in the semester, The same dilemma applied to the rest of our course offerings. For example, after having to cancel several "In-Service" classes in 2016 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

it turned out to be the one of the largest (close behind the 2016 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. Forcible Entry Props and Circular Saws: As an Accredited Regional Training Program through SFT, we are required to deliver Firefighter I & II training which includes a variety of forcible entry activities. To conduct these activities, props that reflect a variety of entry devices are required including; commercial inward and outward swinging doors, window bars, roll-up (garage) doors, security gates and re-bar trees. In addition, because one of the most common tools used to effect entry on these props is a circular saw, it is essential to have at least two working units in order to provide a class of 40 students the "hands-on" time needed to practice and test to these skills.

In addition to serving the FFI Academy and FFII testing, these props will also serve an instrumental role by providing those props necessary to conduct the skills required in the proposed 80 hour Truck Academy class (Fire 284) which we have been asked to deliver by our Advisory Committee. With only one other such class being offered in California at Rio Hondo College in Southern California, delivery of this class will serve an enormous need not only in the North Bay, but all of Northern California.

2. Wildland Fire Shelters: As an essential component of wildland fire training, it is essential to possess an adequate number of practice fire shelters that meet existing standards. Unfortunately, several years ago, the model we have in our inventory was retired because they failed to meet newer OSHA safety standards, creating a need to purchase practice shelters identical to what is now used. The fact that the largest loss of firefighter's lives (19) since 9/11 occurred in a 2012 wildfire in Arizona attests to the importance of having current safety equipment to train on.

3. Extension Ladders: While we have been fortunate to have a variety of ladders donated by local fire agencies, given the high level of use they receive in the academy, they have a service life of 6-7 years despite annually receiving repairs from a qualified repair service. To that end, it will be necessary to purchase at least 2 new 35" extension ladders as well as two 20' CALFIRE style extension ladders.

4. Hose and Appliances: As an Accredited Regional Training Program through State Fire Training, we are required to deliver Firefighter I & II training and testing activities. In the Fire Academy one of the critical "Core" topics conducted are hose. Because both of these are manipulative based, the instructional aids used in their delivery receive an inordinate amount of wear which shortens their life span. This situation is made worse by the fact the vast majority of our hose is donated and already has significant wear, further shortening their life cycle. Subsequently, it has become necessary to replace both the hose and many of our appliances on a regular basis. To maintain an adequate inventory, 4 lengths of supply and 12 lengths of structure hose are requested along with a variety of appliances including, wyes, siameses, intake valves, as well as hydrant wrenches.

At our Advisory meeting scheduled for May 4, 2018 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 Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0000	Windsor	01	07	35' Extention Ladders	2	\$1,108.12	\$2,216.24	R.Collins	PSTC	R.Collins
0000	Windsor	01	07	Circular saws	3	\$850.00	\$2,550.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	20' Extension Laders	2	\$672.89	\$1,345.78	R Collins	PSTC	R Collins
0000	Windsor	01	07	Roll-up Door Forcble Entry Prop	2	\$8,000.00	\$16,000.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	Hinge Pulling/Cutting Prop	2	\$1,000.00	\$2,000.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	Window Bar Prop	2	\$900.00	\$1,800.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	Direct Mount Door System	3	\$5,850.00	\$17,550.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	Pro-Bar Lock Slot Set	2	\$352.00	\$704.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	Rubbish Hooks	3	\$126.00	\$378.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	PIG Notch Heads (32" handle)	2	\$206.00	\$412.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	30" Halligans	2	\$250.00	\$500.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	Hydra Force Ram	1	\$2,220.00	\$2,220.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	Aluminim Wedges	3	\$60.00	\$180.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	2-1/2" & 4" Hose	16	\$195.00	\$3,120.00	R Collins	PSTC	R Collins
0000	Windsor	01	07	Various Hose Appliances (valves, siamese adapters)	19	\$761.00	\$14,460.62	R Collins	PSTC	R Collins
0003	Windsor	01	07	Rebar Tree Frocible Entry Prop	2	\$1,450.00	\$2,900.00	R Collins	PSTC	R Collins
0004	Windsor	01	07	Commercial Door Cutting Prop	2	\$1,100.00	\$1,100.00	R.Collins	PSTC	R.Collins

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0005	Windsor	01	07	Practice Fire Shelters	60	\$160.19	\$9,634.80	R Collins	PSTC	R Collins

2.4d Non-Instructional Equipment and Technology Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Windsor	04	07	Carport	1	\$6,784.00	\$6,783.00	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	Carport for Fire Engines	\$7,000.00	Metal prefabricated structure closed on three sides identical to existing structure that houses our other two fire engines

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 five years ago and avoid the costs associated with leasing. While I am pleased to report that these efforts have saved the District in excess of \$125,000 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 as required by our accrediting agency 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 firefighter training and the unsustainable nature of this practice given the prolonged drought California is facing. 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, 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 three acre fire training area that reclaims water that is used and stores it in a tank (above or belowground). 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.
- Using Professional Experts to handle our materials/maintenance needs rather than use a F/T position.
- Continuing to implementing facility improvements at the PSTC to operate the academy at that site, eliminating the cost of leasing the Santa Rosa Fire Training Tower (resulting in over \$125K in savings over the last 5 years) and which has also lowered labor costs by consolidating our operations at one site.
- Aggressively pursuing grant opportunities to obtain the instructional equipment necessary to deliver instruction. This includes over \$500,000 in CETA grants and \$70,000 in IELM funds over the last five years.
- Entering into ISAs 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, minimizing labor costs and avoiding having to pursue PO's with equipment rental companies.
- Continuing to actively pursue donated equipment.

While donations remain the largest source of our equipment, we will continue to seek Perkins (CETA) to purchase equipment that improves our program and cannot be obtained 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 – 25 White, 3 Latinos, 1 Asian, 1 Pacific Islander

Female Adjunct Instructors - 8 White

The ages of our Adjuncts faculty ages range from the 20's to the early 50'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.

As a CTE Program, we are constantly evaluating it to ensure it remains relevant to the region. For example, in the wake of the devastating fires last October, enrollment in our Volunteer Fire Skills courses (Fire 107A & 107B) grew as local fire agencies experienced a spike in those desiring to become Volunteer Firefighters. However, because the courses had originally been approved to require 107A as a prerequisite to 107B, it discouraged many from enrolling in the 107B course we offered in spring 2018 so we re-numbered the courses to 107.1 & 107.2 to remove this obstacle.

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:

- Periodically circulating a "Song of the Day" to generate a little humor and challenge staff's knowledge of trivia.
- Hosting picnics and holiday parties for all staff

As for bringing new staff into the program, recruiting and hiring of the best candidates has always been a high priority goal. With the vast majority of instruction being delivered by Adjuncts, most of our hires come from local fire agencies whom are well know to us prior to participating in the hiring process. In fact, because of the intimate nature of the local fire service, many of our adjuncts are recruited by the Program Director because of their subject matter expertise in a given area. This is very beneficial as it allows us to hire candidates who are recognized experts in their respective fields which helps maintain quality instructional deliver.

Student Health and Wellness is promoted through four of our courses. In Fire 71 where students are introduced to the Fire Service, the importance of health and wellness is part of the curriculum. 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 2017
- 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 has 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 2017
- Completed the District's Forklift Training Course
- 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

The Fire Program has prided itself on maintaining a strong commitment to sustainability practices for some time. As an example, since August 2010, the following sustainable practices have been implemented:

- 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 countless driver trips to the Santa Rosa Fire Department Training Tower which is a 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 reason for the composite bottles is that they were donated).
- With the acquisition of an ice machine, the program now has students use re-fillable 1/2 gallon water containers for their hydration which has eliminated the need to purchase bottled water (for a summary of the extent of this problem go to: <http://greenliving.nationalgeographic.com/water-bottle-pollution-2947.html>)
- We have transitioned to a paperless, on-line final written exam for the FFI Academy.
- For the FFI Academy, two years ago we transitioned to the use of EVALS.net which has provided an electronic platform to post handouts rather than use hard copy. 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 our training requirements. Given the enormous quantities

of water that are used for these activities and the prolonged drought facing California, this clearly represents an unsustainable practice. 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, 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 our program down.

One solution to this dilemma would be to use the "Pozzi" property adjacent to the PSTC to construct a 3 acre fire training area that reclaims water used in fire training by storing in above or belowground tanks which is pumped to hydrants dedicated exclusively for training activities. 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 other CC Fire programs such as Victor Valley and Miramar. Given Mr. Pozzi's strong support of the Fire Program (including an existing fire scholarship in his name), it would also be a fitting tribute to his legacy

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 water in the fire system (the Domestic and Irrigation/recycled waters are billed separately), the project will ultimately amortize itself and save money over the long term. A report, covering this in more detail is also being prepared by the District's Sustainability Coordinator

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 has recently completed 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 (our accrediting agency) underwent a process to "re-align" all of its courses with the applicable National Fire Protection Association (NFPA) standards. This 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 different from ones presented in previous PRPP's.

It should be noted that as the assessments are completed on these new courses, the information collected will be shared with State Fire Training (SFT). The purpose being to identify any potential weaknesses in their delivery and also to determine if they 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 that class. Upon further investigation, we learned it had been gained through either their job environments or by having the material covered in another related class. To that end, we now query each class as to their current knowledge of the material and if already covered, we alter the schedule to devote more time on other topics that will benefit 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
- Firefighter I Academy

As of the writing of the 2015 PRPP, all three have been assessed with the next plan for assessment scheduled for 2020.

As identified with the course assessments, one of the outcomes of the program assessments is that it has allowed us to identify redundancies in some of our programs. While some of this is unavoidable as they follow either FESHE, SFT or IFSAC/Pro-Board course plans, we do query our students when these areas of over-lap are reached and if they demonstrate a thorough understanding of the material, we use the time to reinforce more challenging topics which ultimately improves their learning experience.

4.1c Student Learning Outcomes Reporting

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	Fire 107A - Vol Fire Skills	Fall 2017	Fall 2017	Fall 2018
Course	Fire 107B Ad Vol Fire Skills	Spring 2018	Spring 2018	Spring 2019
Course	Fire 202 - Ethical leadership	Summer 2017	Summer 2017	Summer 2018
Course	Fire 206- Wildland Fire Acad	Fall 2017	Fall 2017	Spring 2018
Course	Fire 208 - Intro to FFI Acad	Summer 2017	Summer 2017	Fall 2017
Course	Fire 208.1 - FFI Academy	Fall 2017	Fall 2017	Spring 2018
Course	Fire 208.4	Spring 2018	Spring 2018	Fall 2018
Course	Fire 208.5	Spring 2018	Spring 2018	Fall 2018
Course	Fire 212 - Rescue Systems	N/A	N/A	N/A
Course	Fire 219 S-290	Spring 2017	Spring 2017	Spring 2018
Course	Fire 241 - Driver Operator 1A	Fall 2017	Fall 2017	Spring 2018
Course	Fire 258 - Driver Operator 1B	Spring 2017	Spring 2017	Spring 2018
Course	Fire 259 ICS 200	N/A	N/A	N/A
Course	Fire 270.1 All Risk Ops	Spring 2017	Spring 2017	Spring 2018
Course	Fire 270.2 Wildland Ops	Fall 2017	Fall 2017	Spring 2018
Course	Fire 270.3 HM Inc CO	Fall 2017	Fall 2017	Fall 2018
Course	Fire 271.1 HR for CO's	Fall 2017	Fall 2017	Fall 2018
Course	Fire 271.2 Fire Admin for COs	Spring 2018	Spring 2018	Spring 2019
Course	Fire 272 Insp & Inv for CO's	Spring 2017	Spring 2017	Spring 2019
Course	Fire 273.1 Fire Ser. Inst. I	Spring 2017	Spring 2017	Fall 2018
Course	Fire 273.2 Fire Ser. Inst. II	Fall 2017	Fall 2017	Spring 2018
Course	Fire 56 - Fire Hydraulics	N/A	N/A	N/A
Course	Fire 61 - Fire Investigation	N/A	N/A	N/A
Course	Fire 71 - Fire Protection Org	Fall 2017	Fall 2017	Spring 2018
Course	Fire 72 - Fire Behavior	Fall 2017	Fall 2017	Spring 2018
Course	Fire 73 - Fire Prevention Tech	Fall 2017	Fall 2017	Spring 2018
Course	Fire 74 - Fire Prot Sys& Equip	Spring 2018	Spring 2018	Fall 2018

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	Fire 76 - Building Constructio	Spring 2018	Spring 2018	Fall 2018
Course	Fire 77 - Haz Mat	Spring 2018	Spring 2018	Fall 2018
Course	Fire 78 - Fire Safety & Surviv	Fall 2017	Fall 2017	Spring 2018

4.2a Key Courses or Services that address Institutional Outcomes

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
FIRE 107A		X		X	X	X	X	X	X		X	X	X	X		X
FIRE 107B		X		X	X	X	X	X	X		X	X	X	X		X
FIRE 202			X	X		X	X	X	X	X	X	X	X	X	X	X
FIRE 206	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 208	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 208.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FIRE 208.4	X	X		X		X	X	X	X	X	X		X			X
FIRE 208.5	X	X		X		X	X	X	X	X	X					X
FIRE 219	X	X		X			X	X	X	X	X	X	X	X		X
FIRE 241		X	X	X	X		X	X	X	X	X	X	X	X	X	X
FIRE 258	X	X	X	X	X		X	X	X	X	X	X				X
FIRE 259		X	X	X	X			X	X	X	X	X	X	X	X	X
FIRE 270.1		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
FIRE 270.3	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

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
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 has fallen primarily on them. For courses that follow an academy type format using multiple instructors, their SLO's have been 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 S2018	
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 F2018	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 S2018	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 continue to host those classes necessary to assist them meet the new training requirements implemented by SFT. Each staff member involved in the academy attended 24 hours of instruction to meet these requirements to 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). These efforts were validated last December when SFT staff conducted an audit of the certification test process we administer in the fire academy. I am happy to report that with the exception of two minor comments, we received a very positive report.

It should also be noted that over the last two years, 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. As one of a handful of academies to have an approved "Stand Alone" Firefighter II certification testing class, it has positioned us to begin providing this service once State Fire Training receives authorization to do so.

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-219 (36 Hr FSTEP)
- S-290 (24 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 become employed by that agency.

I am also pleased to share that effective F2017, the SFT Fire Control 3B has been 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)

Fire 270.2 - 1 section (F 6-10pm, 8-5 Sat & Sun)

Fire 272 – 1 section (ThFSat 8-5)

10pm, Sat/Sun 8-5)

Fire 273.1 - 1 section (F 6-

Fire 280 - 1 section (Sat 8-5)

Fire 283 - 1 section (TBA)

Fire 708 – 1 section (by appointment)

Fire 991 - 3 to 5 sections by appointment

Summer 2018 Schedule

Fire 208 - 1 section (2 SAT & SUN 8-5)

5:30-10:30 PM)

Fire 708 - 1 section (by appointment)

sections (by appointment)

Fire 71 – 1 section (M & W

Fire 78 - 1 section (On-line)

Fire 991 - 2-3

Fire 202 - 1 section (Wed 8-5)

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 270.1, 270.2, 272, 273.1 & 241 & 258 courses which we also offer in the evening/weekend to serve volunteer firefighters.

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 each Fall since beginning in 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, 72 and 76 in both Distance Ed (DE-On-line) and classroom versions with Fire 74 and Fire 78 exclusively on-line. This spring we are also developing Fire 73 for on-line delivery with a target of Fall 2018 which when complete, will mean a FS Degree/Certificate can be obtained exclusively on-line.

In terms of our ability to serve our students, I feel we do a decent job balancing the hours, location and format. Three 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	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	12	160	125	7	134	171	26	140

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	33	151	224	29	181	223	33	155

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	41	168	373	69	209	319	108	226

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	86	479	722	105	524	713	167	521

5.2a Enrollment Efficiency

Over the last 4 years, the program has averaged an enrollment efficiency of 73.7% (not including summer) which represents a downward trend. There are several reasons that I believe contribute to this trend. The first is the efforts the District recently made to add classes in an effort to boost enrollment (up 47% since 2010). While this was done, on several occasions it resulted in additional offerings of the same course which would have an obvious impact. Another reason is due to the retirement of the CFSTES Fire Officer certification track in 2017 and its replacement with a new Company Officer track. As with most new programs, it has taken time to build enrollment and many of these courses have been running with the minimum thresholds over the past year. Another reason I believe this has not been higher is due to our ability to offer more 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.

Santa Rosa Campus

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	0.0%	89.4%	61.2%	0.0%	72.9%	69.0%	0.0%	87.4%

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	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	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	55.0%	65.8%	76.3%	85.7%	80.3%	77.2%	102.9%	81.6%

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	64.7%	71.5%	73.9%	77.4%	73.1%	75.4%	94.0%	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 over the last four years has averaged 26.77 which remains fairly steady and has countered a slight downward trend we were experiencing until 2017.

Santa Rosa Campus

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	0.0	50.7	34.7	0.0	41.3	36.3	0.0	39.3

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	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	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	22.0	19.8	20.6	30.0	23.6	21.8	36.0	24.4

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	27.5	27.4	24.1	29.7	27.3	25.9	35.3	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. While purely anecdotal, I believe much of this can be attributed to the increase in our on-line course offerings which almost universally, have high enrollments.

Santa Rosa Campus

Fire Technology (FIRE)		X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
	FTES	0.90	16.10	12.67	0.53	13.27	16.30	1.13	12.60
	FTEF	0.00	0.70	0.60	0.00	0.60	0.80	0.00	0.60
	Ratio	0.00	23.00	21.11	0.00	22.11	20.38	0.00	21.00

Petaluma Campus (Includes Rohnert Park and Sonoma)

Fire Technology (FIRE)		X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
	FTES	3.55	14.39	21.24	3.12	16.80	20.85	3.25	15.50
	FTEF	0.21	1.08	1.45	0.21	1.25	1.45	0.21	1.00
	Ratio	16.91	13.34	14.70	14.86	13.49	14.42	15.50	15.50

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

Fire Technology (FIRE)		X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
	FTES	1.50	35.69	67.28	2.19	42.15	55.42	5.30	47.42
	FTEF	0.05	1.63	4.25	0.03	1.98	3.05	0.15	1.34
	Ratio	32.83	21.84	15.84	86.10	21.33	18.15	36.00	35.50

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

Fire Technology (FIRE)		X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
	FTES	5.95	66.18	101.18	5.84	72.22	92.57	9.69	75.52
	FTEF	0.26	3.41	6.29	0.23	3.82	5.30	0.36	2.94
	Ratio	23.29	19.39	16.08	24.83	18.90	17.47	27.14	25.72

5.4 Curriculum Currency

5.4 Curriculum Currency (annual)

Over the last year, both Fire 61 & 77 have gone through the update and approval process. At this time, Fire 72 is being updated as well as Fire 107A & B which will probably be converted to new courses (107.1 & 107.2).

It is important to note because of the extensive alignment process implemented by State Fire Training (SFT) a large number of their classes which we offer in our program will be retired (or inactivated or terminated in the College system) which will negate the need to update. A partial list of these includes:

- Fire 200.1, 200.2, 200.3
- Fire 201
- Fire 203
- 204A, 204B, 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 Academy enrollment deadline of June 1st and October 1st. One scheduling change we made several years ago was to realign the Fire 208 prerequisite to occur very early in the semester. This allows a student who successfully completes the course to enroll in the fire academy the next semester. Prior to this change, this resulted in the student having to wait another 6 months before being eligible to enroll.

In addition to the resources available to our students, with 39 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 2017 are 15, down from 23 in 2016 however, Major/Degrees (AS Degree in Fire Technology) awarded in 2017 are 34, up from 30 in 2016.

Firefighter I (FFI) Academy Certificates awarded in 2017 are 56. This is down approximately 11 certs from 2016. It is my opinion that one of the reasons for this decline is that with the new curriculum increased the academy hours by 100 and adding a very structured certification test, it has discouraged enrollment. Another fact which I also believe is having an adverse impact is the success of our Volunteer Fire Skills course which provides a less intensive alternative for those seeking to serve as volunteer firefighters.

The increase in hours combined with the need to also offer "stand-alone" FFI testing and our 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.

One final note worth sharing. Despite the more rigorous requirements for the FFI Academy and the testing process, I am please to share that since its implementation in 2015, we have not lost a single student in class due to academics or testing, allowing all to move on to participate in their interinships and receive their FFI certificates.

5.6 Student Success

5.6a Retention

The retention rate for the FT Program for 2017 is 82.3% 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	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	100.0%	73.1%	69.4%	100.0%	66.7%	70.2%	92.3%	74.3%

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	90.6%	83.1%	83.9%	100.0%	84.6%	87.5%	87.9%	81.9%

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	90.9%	87.4%	92.7%	90.2%	79.7%	95.4%	91.7%	83.4%

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	92.4%	81.2%	85.9%	93.8%	78.1%	86.7%	91.0%	80.3%

5.6b Successful Course Completion

The successful course completion rate for the FT program in 2017 was 80.8% which is up slightly from 80.5% average for the previous 3 year average).

Santa Rosa Campus

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	100.0%	70.0%	67.7%	100.0%	63.7%	66.7%	92.3%	72.9%

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	90.6%	78.6%	78.9%	100.0%	80.8%	87.1%	84.8%	78.1%

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	90.9%	85.5%	92.4%	90.2%	79.7%	95.4%	54.6%	83.4%

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	92.4%	78.0%	84.0%	93.8%	76.0%	85.7%	66.5%	78.7%

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	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	3.41	2.93	2.96	3.56	2.75	2.91	3.56	3.24

Petaluma Campus (Includes Rohnert Park and Sonoma)

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	3.58	2.08	2.63	3.79	2.46	2.66	3.48	2.95

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

Discipline	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	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	X2014	F2014	S2015	X2015	F2015	S2016	X2016	F2016
Fire Technology (FIRE)	2.78	2.52	2.37	2.58	2.65	2.40	0.53	3.09

5.7 Student Access

5.7 Student Access (every third year)

5.7a Ethnicity

Although the ethnicity reflected in Fire Tech (FT) tends to be lower than the District as a whole, over the last 3 years the trend has been a decline in the number of white students, an increase in Latino students and negligible changes in the rest of our demographic groups.

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

Fire Technology (FIRE)	Ethnicity	2014-15	Percent	2015-16	Percent	2016-17	Percent	2017-18	Percent
	White	884	74.5%	910	74.1%	806	68.5%		
	Asian	9	0.8%	7	0.6%	35	3.0%		
	Black	12	1.0%	21	1.7%	15	1.3%		
	Hispanic	207	17.4%	188	15.3%	189	16.1%		
	Native American	6	0.5%	6	0.5%	4	0.3%		
	Pacific Islander	5	0.4%	10	0.8%	15	1.3%		
	Filipino	3	0.3%	4	0.3%	5	0.4%		
	Other Non-White	59	5.0%	55	4.5%	52	4.4%		
	Decline to state	2	0.2%	27	2.2%	56	4.8%		
	ALL Ethnicities	1187	100.0%	1228	100.0%	1177	100.0%		

5.7b Gender

While females represent an increasing population of the District as a whole, their composition in the Fire program has remained quite small although it has been trending up over the last 4 years. 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 the efforts being made to promote female enrollment by attending Career Fairs at local high schools by the programs F/T who is female.

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

Fire Technology (FIRE)	Gender	2014-15	Percent	2015-16	Percent	2016-17	Percent	2017-18	Percent
	Male	1077	90.7%	1080	87.9%	1032	87.7%		
	Female	103	8.7%	131	10.7%	129	11.0%		
	Unknown	7	0.6%	17	1.4%	16	1.4%		
	ALL Genders	1187	100.0%	1228	100.0%	1177	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 Technology (FIRE)	Age Range	2014-15	Percent	2015-16	Percent	2016-17	Percent	2017-18	Percent
	0 thru 18	130	11.0%	88	7.2%	111	9.4%	117	10.0%
	19 and 20	197	16.6%	196	16.0%	185	15.7%	185	15.7%
	21 thru 25	410	34.5%	402	32.7%	412	35.0%	412	35.0%
	26 thru 30	230	19.4%	266	21.7%	245	20.8%	245	20.8%
	31 thru 35	126	10.6%	138	11.2%	119	10.1%	119	10.1%
	36 thru 40	48	4.0%	57	4.6%	43	3.7%	43	3.7%
	41 thru 45	21	1.8%	43	3.5%	24	2.0%	24	2.0%
	46 thru 50	7	0.6%	19	1.5%	20	1.7%	20	1.7%
	51 thru 60	15	1.3%	18	1.5%	18	1.5%	18	1.5%
	61 plus	3	0.3%	1	0.1%	0	0.0%	0	0.0%
	ALL Ages	1187	100.0%	1228	100.0%	1177	100.0%	1177	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 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 in the 2017-18 school year is 23 for the Spring semester and 19 for the Fall which mirrors the 2016-17 year. 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 were 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.

5.9a Curriculum Responsiveness

5.9 Curriculum Responsiveness (every third year)

Our Program meets the changing needs of our students, employers and community through a number of activities. First, the core classes required for the degree/certificate programs (Fire 71, 72, 73, 74, 76, & 78), are aligned with the Fire and Emergency Services Higher Education (FESHE) model as required by our accrediting agency State Fire Training (SFT) and meet current transfer requirements at the CSU. The second is by remaining responsive to the needs of local fire agencies as shared by the feedback we

receive from our Advisory Committee and by regular attendance at our Fire Chief's and Training Officer meetings.

One example of this is a recent change we implemented to our Volunteer Fire Skills program (Fire 107A & B). Given the large number of Volunteer Firefighters in the County, there has been a genuine need for such a path which became more pronounced after the fire siege experienced in October 2017. To accommodate this spike in interest, at the request of local fire agencies, we changed the sequencing of the program to allow either course to be taken first, eliminating a delay that may have kept students from pursuing their training for as long as six months. It should be noted that an outline of this program has been adopted by the California State Firefighter's Association to deliver training to other Volunteer Fire departments outside of the County allowing us to be a leader in this field at the statewide level. Now in its fifth 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.

In terms of plans for new directions in our program, we have only recently completed an alignment of our FFI Academy and "In-Service" courses to align with National Fire Protection Association (NFPA) standards resulting in the addition of 8 new courses and the termination of a like amount. This not only kept our curriculum current, but also kept us in compliance with the terms of our accreditation.

As a CTE program, we have an Advisory Committee consisting of twelve members and over the last three years have maintained an average attendance of 75% per meeting. The members of our committee represent the various fire service stakeholders for Sonoma, Marin and Mendocino Counties including the Fire Chiefs, Fire Training Officers, Fire Prevention Officers as well as two largest fire agencies (Santa Rosa and CALFIRE). The rationale for this profile is to provide representation from every aspect of the occupation that a degree or certificate completor might enter. Of the twelve Advisory Committee members, two instruct in the program.

To provide a means for the Advisory Committee to review curriculum, we have a standing item in our agendas called Curriculum Update where all curriculum be it changes, updates or new courses are reviewed and feedback solicited. While these have resulted in many changes to existing curriculum, the greatest impact is from the new courses that they recommend. To give an example, in the past two years, we have developed the following courses based on their recommendation:

- Fire 208.4 Firefighter I Capstone Test Class
- Fire 208.5 Firefighter II Capstone Test Class
- Fire 280 Fire Dynamics
- Fire 283 S-219 Burn Boss
- Fire 213 Confined Space Technician

Another curriculum path we have pursued is the implementation of a Volunteer Fire Skills certificate program. 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 positions to many of our graduates and it appears that this trend will continue for the next few years.

According to the Employment Development Department, between 2016 and 2021, California Firefighters will experience a 6% growth in employment with Fire Inspectors and Investigators growing

by 8%. The figures will be more pronounced in the North Bay region where growth is expected to reach 12%. While these figures do not represent Volunteer positions, It should be noted that approximately 70% of our Academy students will serve interinships as volunteer firefighters which receive generous stipends that are the equivalent of a part-time job. Most Volunteer fire jobs often lead to a paid positions.

However, one of the most encouraging statistics is that with the 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 24% 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 valaidation process. To that end, we examine the possibility of including 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
0000	Windsor	01	06	Build enclosure to conduct fire extinguisher training	Draft plans, obtain approval and funding source	End of 2017	Project completed Feb 21, 2018
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 to build 3 acre fire training area, obtain prospective site designs, dedicate funds, implement project timeline, prepare engineered drawings, develop RFB, award contract, begin construction	Obtain approval Dec 2018	Obtained support of District Sustainability Committee, Report prepared by Sustainability Coordinator.
0002	Windsor	02	06	Implement "Stand alone" Firefighter II (FFII) test class	Finish construction of USAR prop and develop syllabus	Completion by Dec 31, 2017	Project completed Jan 2017. Waiting SFT approval to offer class
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	Continuous	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	Program (including Admin functions) has been implemented in FFI Academy and is in use
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, Lake & Mendocino Counties	Completion by July 1, 2017	Outreach has been performed, course has been offered twice and 4 have successfully completed. For reasons of efficiency, they have been tested (piggy-backed) with existing FFI Academy academy
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	Instructor recruited to develop/deliver course, course in process of being built March 2018
0007	ALL	08	05	Develop HS "Intro to Public Safety" course to create path for interested students	Write curriculum, obtain approvals, obtain funding for instructor salaries from CTE	Dec 31, 2018	Seeking curriculum from existing successful program to be used as a template

6.2b PRPP Editor Feedback - Optional

After having prepared the PRPP for my program for 8 years, I would offer the following recommendations:

Given the passage of Measure H and the interest in updating many of the District's facilities, creating a specific nexus between section 2.5b (Analysis of Existing Facilities) and the allocation of Measure H funding would be appropriate.

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

Lastly, I would replace the excel format of section 6.2a with a word version. The excel version is extremely hard to edit and has made it very hard to update.

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	Board support by Dec 2018	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)
0002	Windsor	01	07	Obtain Draeger Phase II prop to perform Firefighter II and other mandated training	Prepare and be awarded SWF grant, obtain bids for concrete pad and pour, deliver & set up Phase II prop, conduct staff training,	Completion by Dec 2018	Support from CTE, Purchasing and Facilities offices
0004	Windsor	04	01	Continue to perform 2nd round of SLO Assessments	Contact Instructional staff and share Project SLO guidance & forms.	Continuous	Support (as needed) from the SLO Coordinator
0005	Windsor	01	06	Develop Truck Academy curriculum and obtain necessary props to deliver the course	Write curriculum, obtain CRC & Chancellor's approvals, submit grants for necessary props and obtain approvals, purchase props, implement class	Spring 2019	Support from Curriculum, CTE and Purchasing offices
0006	ALL	08	06	Begin delivery of Fire 73 on-line (last core class not offered this format)	Continue to work with support Instructor developing course in CANVAS	Begin delivery in Fall 2018	Support of DE and Disability Review offices.
0007	ALL	00	00				