

# Comprehensive Program Review Report



## Program Review - Fire Technology

### Program Summary

#### 2020-2021

**Prepared by:** Richard Smith, Fire Technology Coordinator

**What are the strengths of your area?:** The Fire Technology Program has many strengths, which include, but are not limited to:

- Student success is up program-wide, from 79% in 18-19, to 80% in 19-20.
- Our courses are commensurate with those offered by other Community Colleges nation-wide, making them easily portable for students transferring into or out of our district.
- I work closely with our Veteran's Office coordinating credits earned through military service that are applicable to our program and graduation requirements.
- Many of our courses are designed and regulated by the Office of the State Fire Marshal, Training Division, and are required by fire departments throughout California for entry level as well as promotional positions.
- During the past year, we have two new courses approved, with the first scheduled for Fall 20.
- The State Board of Fire Services issued a five-year reaccreditation for the program in August, 2020.
- Fire 270, the Basic Fire Academy, had 41 cadets in 2020, the most ever, and we expanded the capacity of several semester courses to accommodate demand.
- We successfully implemented and proctored the new evaluation process for Academy cadets as required by the State Fire Marshal for the third year, improving our delivery of this challenging process.
- We have the support of an active and involved advisory committee, though meetings this year have been impacted by the pandemic.
- We enjoy excellent cooperation with, and share some facilities and equipment with, the Porterville College Fire Technology Program.
- We participate in a number of outreach opportunities in an effort to publicize and attract attention to our program.
- Important equipment updates and purchases were made in 2020.
- We have removed outdated and obsolete courses from the catalog.
- We have begun meetings with Visalia Fire Department respecting the use of their facility.
- Though not part of Fire Technology, an additional EMT251 course offering provides greater opportunity for candidates to complete fire academy prerequisites

**What improvements are needed?:** The fire Technology Program has a number of areas that could be improved, which include the following:

- Fire 270 does not attract enough female students, though the most recent class had 6, the most ever. This, unfortunately, reflects the male dominance of this industry, particularly in the local area.
- We do not attract enough Black students.
- To help with the previous two points, we need to find instructors from these demographic groups.
- We have no full-time faculty teaching in the program. Instructors for many of our offerings must be approved by the State Fire Marshal's Office to teach their courses. This limits the pool of available instructors.
- The program needs access to more comprehensive facilities to properly administer instruction and required skills evaluation for academy cadets.
- Student success among specific demographic groups in all classes must be continually monitored.
- The hiring, retention and scheduling of assistant instructors in the academy is challenged by the low pay of this position and competition from overtime in their departments.

**Describe any external opportunities or challenges.:** One possible opportunity for program expansion is the creation of a

Paramedic Training Program. Another is the exploration of an MOU with Visalia Fire Department for the use of their training facility, for which talks have begun. This grows more urgent with the High Speed Rail impacts on our current training facility on Houston Avenue. Additionally, the continued expansion of the EMT offerings, with the potential to host an EMT course at the Hanford Center, would help prepare academy candidates.

We should develop an Instructional Services Agreement to offer to local fire departments.

We will also proactively take steps to foster an Antiracist environment throughout our program delivery.

The Covid-19 pandemic has challenged our advisory committee participation.

**Overall SLO Achievement:** All of our current courses meet or exceed their SLO goals.

**Changes Based on SLO Achievement:** All courses are meeting their target outcomes. We will work to be certain that our outcome goals are valid and relevant, and adjust them as needed. Overall, for a department comprised solely of adjunct faculty, I am pleased with the results.

**Overall PLO Achievement:** I am satisfied with current PLO achievement; however, we should work to increase participation in the program by Black and Female students.

**Changes Based on PLO Achievement:** The program should be expanded to better serve the needs of our students and industry, and to provide greater opportunity to each of these constituent groups. We will work to add courses and continue to offer high-quality vocational education throughout the district.

**Outcome cycle evaluation:** The department seems to be making satisfactory progress within the three-year assessment cycle in a majority of its courses.

## Action: 2019-2020 Expand California State Fire Training Course Offerings

Add two new State Fire Training courses to our catalog and offer courses to our students.

**Leave Blank:**

**Implementation Timeline:** 2019 - 2020

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**Identify related course/program outcomes:**

**Person(s) Responsible (Name and Position):** Richard Smith

**Rationale (With supporting data):** To better meet the needs of our students and industry partners, we must continue to provide access to courses that are required for promotion and continuing education for local fire departments. In this year, I would like to offer new courses in Fire Service Instructor Training, and Fire Investigation Training.

**Priority:** High

**Safety Issue:** No

**External Mandate:** Yes

**Safety/Mandate Explanation:** Many fire departments require these courses for their employees, and there is a desire from our advisory committee to provide them.

### Update on Action

#### Updates

**Update Year:** 2020 - 2021

09/09/2020

**Status:** Continue Action Next Year

Both courses are approved and included in the 20-21 Catalog. The initial offering of Fire 235 is scheduled for Fall 2020, and Fire 236 will be scheduled in a future semester. Status is continued until we have offered Fire 236.

**Impact on District Objectives/Unit Outcomes (Not Required):**

## Link Actions to District Objectives

District Objectives: 2018-2021

# Program Review - Fire Technology

**District Objective 1.1** - The District will increase FTES by 1.75% over the three years

**District Objective 2.1** - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years

**District Objective 2.4** - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

## Action: 2019-2020 Expand Capacity of Fire 270 (Basic Fire Academy) to 50 Cadets.

Due to a number of factors, the most important of which is the increased hiring demand from local fire departments, it is desirable to expand the number of seats available in the Fire Academy. The current limit is 35, and the maximum allowed by State Fire Training (SFT) is 50, which is our goal. There are a number of factors which will impact our ability to deliver the course to this many students, which are articulated here:

- Though State Fire Training will allow up to 50 cadets, there are course components, which they also regulate, that have lower maximum allowances for students. We must work with SFT, or develop alternative plans, to allow us to provide approved training for 50 students.
- One limiting factor in cadet readiness to enroll in the academy has historically been the limited availability of seats in EMT 251, a prerequisite course. We must work with the Nursing Department to provide adequate availability for our students preparing to enter the academy, with an ultimate goal of providing an EMT 251 offering at the Hanford Center.
- Our currently available facilities, specifically the joint fire training facility on Houston Avenue, are inadequate to train this number of students, and are, in fact, barely adequate for our current enrollment. We must either endeavor to dramatically improve this facility, or seek an alternative. The most obvious possibility is owned by Visalia Fire Department.
- Adding students will demand additional equipment for training use.
- One significant obstacle is the number of instructors that will be required to safely train this number of students. The student to instructor ratios are determined by SFT and adherence to them is required and strictly enforced. Our problem is that finding a qualified pool of assistant instructors has proven to be a challenge, based upon the training required and our relatively low rate of pay for these positions. Currently, assistant instructors are paid roughly half of the pay for lead instructors, about \$24 per hour. After taxes, we are asking firefighters to give up their evening off from their department, time they would be spending with their family, for about \$50 per night. Since they often have the opportunity to earn many times this much by working overtime, getting interested and qualified persons to commit to teaching in our program is difficult.

Though daunting, these obstacles are not insurmountable, and I believe that the potential for both increased enrollment and better service to our industry partners makes the effort worthwhile.

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**Implementation Timeline:** 2019 - 2020

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**Identify related course/program outcomes:**

**Person(s) Responsible (Name and Position):** Richard Smith

**Rationale (With supporting data):** The goal of all vocational programs should be to meet the needs of the industry and community served. Providing greater opportunity for students in our program will provide our industry partners with outstanding candidates for employment.

**Priority:** High

**Safety Issue:** No

**External Mandate:** No

**Safety/Mandate Explanation:**

### Update on Action

#### Updates

**Update Year:** 2020 - 2021

09/09/2020

# Program Review - Fire Technology

**Status:** Action Completed

The academy was offered with a 50 student enrollment, and the final enrollment number was 41. We will carry this capacity into 2021, and I expect the academy to be full, as Porterville College did not offer an academy this year. Though many of the bullet points articulated are still areas of concern, I will update this status to complete, and break out those remaining factors into their own action items.

**Impact on District Objectives/Unit Outcomes (Not Required):**

## Resources Description

**Equipment - Instructional** - Expanding the fire academy will require the purchase of additional equipment to provide tools sufficient to meet instructional needs for the greater number of students. (Active)

**Why is this resource required for this action?:** Much of the academy is based on hands-on training with assorted fire department tools. Having a sufficient quantity of these tools is necessary to prevent instruction from bogging down while giving each cadet sufficient opportunity to become proficient in their use.

**Notes (optional):** A detailed list of this equipment, with prices, is found in the document repository.

**Cost of Request (Nothing will be funded over the amount listed.):** 17000

**Related Documents:**

[Equipment List Academy Expansion.xlsx](#)

## Link Actions to District Objectives

District Objectives: 2018-2021

**District Objective 1.1** - The District will increase FTES by 1.75% over the three years

**District Objective 2.1** - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years

**District Objective 2.4** - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

## Action: 2019-2020 Replace obsolete auto extrication equipment.

Fire 270 and 280 both require the use of auto-extrication equipment, commonly referred to as the 'Jaws of Life'. The unit that we currently own is obsolete and does not provide our students with training on the most current and widely-used technology. It should be replaced with equipment that does.

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**Implementation Timeline:** 2019 - 2020

**Leave Blank:****Leave Blank:****Identify related course/program outcomes:**

**Person(s) Responsible (Name and Position):** Richard Smith

**Rationale (With supporting data):** To be relevant and competitive in the workplace, our graduates must have training and familiarity with the most state-of-the-art, modern equipment. Our current extrication tools are 1970s era technology, and should be upgraded to a more modern set of equipment.

**Priority:** High

**Safety Issue:** No

**External Mandate:** Yes

**Safety/Mandate Explanation:** SFT requires that our training utilize the type of equipment most likely to be used in our industry. Our current equipment does not meet this requirement.

**Update on Action**

### Updates

**Update Year:** 2020 - 2021

09/09/2020

**Status:** Action Completed

# Program Review - Fire Technology

Strong workforce funding was used to purchase a new set of state-of-the-art Hurst rescue tools (Jaws of Life). Though I will update this status to complete, all of this equipment requires ongoing maintenance and we will need to supplement it over time.

**Impact on District Objectives/Unit Outcomes (Not Required):**

## Resources Description

**Equipment - Instructional** - New set of Hurst E-Hydraulic Rescue Tools (Jaws of Life) (Active)

**Why is this resource required for this action?:** This action specifically calls for the purchase of equipment meeting the latest technological standard for use in the fire service. Additionally, additional equipment is necessary to provide ample opportunity for each cadet to receive adequate hands-on experience with these tools.

**Notes (optional):** A quote for this equipment is found in the document repository.

**Cost of Request (Nothing will be funded over the amount listed.):** 40000

**Related Documents:**

[Fire Tech Hurst Quote.pdf](#)

## Link Actions to District Objectives

District Objectives: 2018-2021

**District Objective 2.1** - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years

**District Objective 2.4** - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

## Action: Renew State Board of Fire Services Accreditation

Our current accreditation with the State Board of Fire Services expires in 2020, and must be renewed to maintain the relevance of our program.

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**Implementation Timeline:** 2019 - 2020

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**Identify related course/program outcomes:**

**Person(s) Responsible (Name and Position):** Richard Smith

**Rationale (With supporting data):** To produce work-ready, employable firefighter candidates, our program must be accredited by the State Board of Fire Services. The accreditation expires this year, and must be renewed.

**Priority:** High

**Safety Issue:** No

**External Mandate:** Yes

**Safety/Mandate Explanation:** Our program is not valid or relevant without this accreditation.

### Update on Action

#### Updates

**Update Year:** 2020 - 2021

09/09/2020

**Status:** Action Completed

Despite strong competition for staff time related to the Covid-19 Pandemic, the required self-assessment report was submitted to the Office of the State Fire Marshal in May, 2020. The Statewide Training and Education Advisory Committee (STEAC) approved the application in July, and the reaccreditation was approved by the State Board of Fire Services in August. Our program received the maximum 5 year reaccreditation.

**Impact on District Objectives/Unit Outcomes (Not Required):**

# Program Review - Fire Technology

## Link Actions to District Objectives

District Objectives: 2018-2021
<b>District Objective 1.1</b> - The District will increase FTES by 1.75% over the three years
<b>District Objective 2.1</b> - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years
<b>District Objective 2.4</b> - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

## Action: 2020-2021 Update Department Mission and Value Statements to reflect Antiracist and antibias core values.

As part of our Call to Action, I would like to update our mission and value statements to reflect that our organization actively provides equitable opportunities for all students, notwithstanding their race, sexual orientation, gender identity, or other distinguishing characteristic which may have previously resulted in inequitable treatment.

Specifically, I would like to increase our outreach in student recruitment to include locations, organizations, and other settings where these underrepresented students are more likely to be found. Examples may include our own athletic department, and churches, youth centers, and schools in impacted neighborhoods.

By exposing these potential students to our programs and the employment opportunities available to our graduates, I hope to increase the number of female students as well as Black students.

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**Implementation Timeline:** 2020 - 2021

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**Identify related course/program outcomes:** District Objective 2.1

Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years.

District Objective 2.4 By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

**Person(s) Responsible (Name and Position):** Rick Smith, Fire Technology Coordinator

**Rationale (With supporting data):**

**Priority:** High

**Safety Issue:** Yes

**External Mandate:** Yes

**Safety/Mandate Explanation:** Specifically articulating antiracist and antibias as core values of our organization will help to provide equity for all students, removing institutional barriers, and provide for a safe environment in which our students can learn, grow, and prosper.

This action will support the Chancellor's Call to Action mandate.

## Link Actions to District Objectives

District Objectives: 2018-2021
<b>District Objective 2.1</b> - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years
<b>District Objective 2.4</b> - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

# Program Review - Fire Technology

## Action: 2020-2021 Implementation of an Instructional Services Agreement with fire departments located within the district.

Design and implement an Instructional Services Agreement whereby a portion of FTES funding is passed through to local fire departments and college credit awarded to their employees for training provided while on the job by the fire department.

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**Implementation Timeline:** 2020 - 2021

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**Identify related course/program outcomes:** District Objective 2.2 Increase the number of students who earn an associate degree or certificate annually.

District Objective 2.4, Increase Career Technical Education course success rates and program completion annually.

**Person(s) Responsible (Name and Position):** Rick Smith, Fire Technology Coordinator

**Rationale (With supporting data):** Some fire departments within the district receive permission from the district to enter into Instructional Services Agreements with Monterey Peninsula College, whereby a portion of FTES funding is passed through to the department for training that is provided in the course of employment by department instructors. Employees earn college credits, which can be used toward the awarding of degrees and/or certificates, and the college increases FTES and the associated funding. There is strong interest in other departments for this type of program to be implemented here at COS.

**Priority:** High

**Safety Issue:** No

**External Mandate:** No

**Safety/Mandate Explanation:**

### Link Actions to District Objectives

District Objectives: 2018-2021
<b>District Objective 2.2</b> - Increase the number of students who transfer to a four-year institution by 10 percent over three years
<b>District Objective 2.4</b> - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

## Action: Enter in to a Memorandum of Understanding with Visalia Fire Department for the use of their training facility.

The current joint training facility operated by the college and Kings County Fire Department (KCFD) is in the path of the high speed rail project and its availability will soon end. Though KCFD is in the planning stage for a replacement, a new facility is several years away. In the interim, the Fire Technology program must have a facility to continue offering Fire 270 and Fire 280. Visalia Fire Department has a very comprehensive facility, and an MOU will help to assure its availability for our use.

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**Implementation Timeline:** 2020 - 2021

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**Identify related course/program outcomes:** District Objective 2.1

Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years.

District Objective 2.4 By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

**Person(s) Responsible (Name and Position):** Rick Smith, Fire Technology Coordinator

**Rationale (With supporting data):** Fire technology training requires very specialized facilities for live fire and other training. These facilities must meet design and safety standards to provide a secure and safe location to provide this training. Without a suitable facility, this training may not occur.

**Priority:** High

**Safety Issue:** Yes

# Program Review - Fire Technology

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**External Mandate:** Yes

**Safety/Mandate Explanation:** Training of this type must occur in approved facilities designed for this specific use to provide safety for students and staff, in accordance with California State Fire Training guidelines.

## *Link Actions to District Objectives*

District Objectives: 2018-2021
<b>District Objective 2.1</b> - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years
<b>District Objective 2.4</b> - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points