

## I. Description of the Program

The Fire Technology program prepares students to meet the high standards required to pursue a career in the fire service as a firefighter, or a member of related fire protection services. Those standards are developed and determined by the State Board of Fire Services. The methods of instruction and standards are validated by the International Fire Service Training Association. Classes are designed to provide the student with the information needed to meet the fire-related performance objectives required by the National Fire Protection Association Standard NFPA 1001.

Through the expertise of our faculty, and exposure to professional fire service personnel, students can expect to be trained in the latest theories and techniques of fire technology, firefighting skills, and emergency medical training.

## II. Summary of Student and Program Data

### A. Student Learning Outcomes Assessment.

The SLO assessment for the previous three semesters indicates that students are learning and are able to demonstrate a success in the SLOs of between 82% and 100% in the areas surveyed through the assessment tools. This success has validated our expectation of the program and course SLOs.

### B. Student Success Indicators.

Information provided below shows that the success rate of the program is one of the higher percentages of programs offered. The retention rate and success rate are available through the college website.

- Between 2006/07 and 2011/12 (6 academic years), 201 Fire Technology students completed all program requirements and were awarded:
  - Associate in Science Degree: 113
    - AS Degree earners represent 56.2% of all Fire Tech awards
  - Certificate of Achievement: 88
    - CS earners represent 43.7% of all Fire Tech awards
- These award counts for **Fire Technology** students represent the following proportion of all awards earned at CSM during this period of time:
  - Associate in Science Degree: 14% (113/834)
  - Certificate of Specialization: 5% (88/1815)

### C. Program Efficiency Indicators.

The FT Program is staffed by adjunct part-time faculty. It would appear that the efficiency of this is high. Many of our instructors are still employed as full-time fire professionals and the remainder, are recently retired professionals from the agencies in San Mateo County. Student success appears to be high when compared to the college as a whole.

## D. Course Outline Updates.

Because the standards for Fire Technology are from both the State and National Level the updates for those do change periodically. The changes are implemented in a timely manner and are then presented to the COI via the Program Services Coordinator for review and approval. All classes are updated as scheduled whether or not changes have been made.

Courses to be updated	Faculty contact	Submission month
FIRE 714 (two year update)	Keith Marshall	No later than 12/2014
FIRE 715 (two year update)	Keith Marshall	No later than 12/2014
FIRE 720 (two year update)	Keith Marshall	No later than 12/2014
FIRE 725 (two year update)	Keith Marshall	No later than 12/2014
FIRE 730 (two year update)	Keith Marshall	No later than 12/2014
FIRE 740 (two year update)	Keith Marshall	No later than 12/2014
FIRE 745 (two year update)	Keith Marshall	No later than 12/2014
FIRE 748 (two year update)	Keith Marshall	No later than 12/2014
FIRE 787 (two year update)	Kim Roderick	No later than 12/2014
FIRE 789 (two year update)	Keith Marshall	No later than 12/2014
FIRE 793 (last updated 2011)	Keith Marshall	No later than 12/2013
FIRE 796 (two year update)	Kim Roderick	No later than 12/2014
FIRE 800 (two year update)	Keith Marshall	No later than 12/2014
FIRE 810 (two year update)	Keith Marshall	No later than 12/2014

## E. Website Review.

The Website has been reviewed and is current.

## F. The Gainful Employment Disclosure Data – Please see data in Section II

## III. Student Learning Outcomes Scheduling and Alignment

- A. No current or projected modifications
- B. No current or projected modifications
- C. SLO alignment – All appears to be fine.

## IV. Additional factors

Recent trends indicate a slight reduction in the number of students registering in some of the FT classes. This trend appears to be related to two factors. Number one, is the raise in unit cost from \$36 to \$46. This makes a 3 unit class just shy of \$150. This kind of increase can and will limit certain students from taking classes. The second factor is that our program requirements for the Fire Fighter 1 Academy have caused an increase in the number of hours required to present the required curriculum. This increase to 12 units has provided the student with the number of elective units required to complement

the core required classes for the major. Consequently, the elective courses that we offer are seeing a reduction in registration. This semester (S2013) we had to cancel a class due to low enrollment. We will continue to monitor this trend and see if it, in fact, is a problem or an anomaly.

## V. Institutional Planning

### A. Results of Plans and Actions-

Fire Technology classes continue to be popular and draw a high number of students. The student success rates can be found on the program review website under Fire Technology. I believe the success speaks for itself. We have a high number of students that continue through the program.

### B. Program Vision-

1. Adjunct Faculty working within the FT department are current or recent retirees. The development of these individuals is accomplished through the working agencies and through classes offered to enhance the instructor's effectiveness. Through the survey and evaluation process the coordinator determines the need for additional work. Several members attended the workshop required to maintain the certification to teach the California State Fire Marshal approved courses.

2. Student success rates are on track and are within the parameters set forth in the institutional plan. Further success could be accomplished however; additional time and evaluation would be required to meet this goal.

3. Faculty- The adjunct faculty that are currently in place seem to be highly effective. As stated in earlier portions of this document many are current employees within the agencies of the fire service in the bay area.

One improvement that could benefit the department would be the hours of coordination. When the previous coordinator was in this position the release time was twenty-one hours (21). The current person when appointed was given a total of seven hours (7). An increase was granted in 2005 to increase the release time to fifteen hours (15). Each year during the program review a request has been made to increase the number of release time hours back to the twenty-one (21). As in the past several PRs I am requesting serious consideration to that increase. The effectiveness of the position would improve greatly. Several meetings occur each month within the jurisdiction that could be attended. More effective evaluation of adjuncts as well as student evaluations could be conducted. The success of the program certainly seems to justify the increase.

Equipment- Below please find several items that need to be considered for replacement or purchase. The request of these items in many instances is directly related to safety concerns for the students and faculty. Because the FT program deals with manipulative skills as well as academic growth, the equipment replacement is necessary to keep current and safe equipment for use.

For EMT training- The use of this equipment is essential for the success of the EMT program. These items are needed to adequately train and meet the Federal and State of California Standards for

certification. Without this equipment our program will fall behind and suffer. We could also lose our ability to offer the classes by decertification of the program.

Facilities- Facilities are needed for students to practice the different skills necessary to develop and perfect their proficiency. Using various tools and ladders as an example are common training techniques that we have repeated throughout the many years of the success of the program. Previously the use of the buildings around B-23, B-25, and B-27 for ladders and other tool instruction were used. With the demolition of these buildings it has become apparent that a need for a training facility for this purpose is needed. Utilizing the "older" buildings on campus was accomplished without much concern. The newer buildings are more vulnerable to damage and signs of wear if used for this purpose. A plan needs to be developed to provide an area useful for the purpose and durable enough to withstand that type of use.

- C. Plans and Actions to improve student success.  
Continue with current actions and evaluations.

#### VI Resource Requests

##### A. Itemized resources

##### Equipment-

##### 1. EMT resources needed as identified in earlier section.

Item #	Description	Price	Tax	Quantity	Extended
L250000	Airway Manikin	1,895.00	185.91	2	4,161.82
596400	Suction Unit	656.63	57.46	1	714.09
650180	OB Manikin	615.00	53.81	1	668.81
D2301	O <sub>2</sub> Regulators	142.10	12.43	2	309.06
					5,853.78

2. LARRO (Low Angle Rescue Rope Operations) is a class within the FF1 Fire Academy that we offer here at CSM. The equipment is used by all students each semester. This equipment is utilized to instruct, train and determine proficiency in the operation of rescue at low angles. The condition of this equipment is paramount to the safety of the students and instructors. Our current equipment is in need of replacement before its condition worsens and either can't be used or creates a safety issue.

Cost for replacement of necessary items is \$2566.06 Please see attachment PDF.

3. Miscellaneous Tool replacement- This item is one that is placed in the PR each semester to replace miscellaneous tools that are used in the course of the semester for multiple discipline training. (Axes, Shovels, Sledge hammers, and various other hand tools). These are used to demonstrate and develop technique for use. The use of these tools causes wear and once determined to no longer be safe they are taken out of service and either repaired or replaced. Estimated need - \$2000

4. Office Equipment- Replacement of 12-106 printers with one networkable printer: This was the original request when moving into Building 12. Instead, the office was outfitted with three re-deployed printers which constantly give error messages.

#### 5. Office Copier/Fax

This is the total yearly cost needed to pay for the lease contract of the Xerox Workcentre Pro shared by ADMJ and FIRE.       \$5000 (Total) \$2500 (ADMJ)

#### 6. Workgroup Color Laser Printer

The current printer will be seven years old and is no longer under warranty with Dell. This printer will be located in the program suite and shared by ADMJ and FIRE.       \$1200 (Total) \$600 (ADMJ)

7. Instructional Materials- Replacement of Dell laptops. These laptops are 4-5 years old. Although they have worked fine, the technology is quickly becoming inadequate for the use. \$2000

#### 8. Flagpole for B34-

During the construction of B34 space for the Fire Academy the placement of a flagpole was overlooked. Last year a budget item to include a flagpole was submitted but was not granted. Subsequently, it was discovered that the estimate for a flagpole was too low. Due to need to submit to DSA and plan for such a pole the costs are in the range of \$15,000. This is a substantial amount.

The importance of the flagpole at the Fire Academy is explainable. The students are learning the skills and attributes necessary to become a firefighter. Part of the instruction is the inclusion and importance of the flag to the service. Respect to the flag as well as the ways to handle the flag are all important lessons that are taught. The presence of a flagpole and the pride and honor of such are enhanced by the placement of that flagpole at the location of the building. I respectfully request that consideration be given to the placement of a flagpole at a location near B34 near the Fire academy building. The placement of such will enhance the experience by the students to understand and feel the pride that goes along with the honor of the flag of the United States.

