2016-2022 Fire Technology Instructional Program Review

LASSEN COMMUNITY COLLEGE

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2016-2022 Fire Technology Instructional Program Review

SECTION 1: ACADEMIC PLANNING

I. Program Overview, Objectives, and Student Learning Outcomes

Description/Evaluation

Overview of Fire Technology

The Fire Technology program at Lassen Community College (LCC) currently consists of 64 individual courses which provide fire service training needs ranging from the entry level firefighter training to ongoing professional development for career firefighters. A student at LCC can earn an Associates of Science Degree, or a Certificate of Achievement in either Fire Technology or Basic Wildland Firefighting. A student can also take individual courses as needed for personal or professional development.

The Fire Technology Program is designed to prepare students for employment following graduation. Additionally, individual courses are designed to provide students with current industry knowledge, skills and certificates that can be effectively implemented within the profession.

Objectives for the Fire Technology Program:

The Fire Technology Program is designed to prepare students for employment in the Fire Science industry. The Associate in Fire Technology degree and Certificate of Achievement in Fire Technology provide students and employers with certifiable standards of technical career proficiency. The curriculum provides for training skills and techniques as follows:

a. Working knowledge and understanding of fire positions to include Firefighter, Fire Inspector, Fire Investigator, Supervisors and Managers.

b. Workplace safety and orientation

c. "Work ethic" attitudes, principles, responsibility, discipline and initiative.

d. Technical language, vocabulary, equipment, materials and modes of operation.

e. Broad background in the mental and physical skills necessary to operate in the world of firefighting.

f. Professional Development for career success

Program Student Learning Outcomes

Upon completion of the Associate of Science Degree or the Certificate of Achievement in Fire Technology the student will be able to:

1. Demonstrate an understanding of the operational needs of the fire Service by applying definitions, concepts, and principles to typical operations of most fire agencies.
2. Apply critical thinking for making sound ethical decisions during emergency incidents, department operations and strategic planning.
3. Develop, organize and write an incident report that meets the legal and detailed requirements of State fire and medical reporting.
4. Be academically prepared to obtain an entry-level or midlevel position within the Fire Service.
5. Ability to set realistic goals for personal, educational, career, and community development
6. Cooperate with others in a team environment for accomplishment of goals;

The Fire Technology Program's mission and goals support Lassen Community College's Mission Statement and Strategic Goals in the following ways:

LCC Mission

Lassen Community College provides outstanding programs for all pursuing higher education goals. The core programs offer a wide range of educational opportunities including transfer degrees and certificates, economic and workforce development, and basic skills instruction. The College serves diverse students, both on campus and in outreach areas in its effort to build intellectual growth, human perspective and economic potential.

Fire Technology:

- Provides students with diverse educational opportunities and several pathways for success and employment.
- Serves a large area which attracts a wide range of students from different socioeconomic economic backgrounds.

LCC Strategic Goals

1. Institutional Effectiveness: *Provide the governance, leadership, integrated planning and accountability structures, and processes to effectively support the learning environment, while ensuring responsible stewardship of public trust and resources.*

   Fire Technology: Program direction is dictated by an advisory committee. Overall program is managed by a Director who is held accountable to both the Advisory Committee, Lassen College Administration, Faculty and LCC students.

2. Learning Opportunities: *Provide an array of rigorous academic programs delivered via a variety of modalities that promote student learning and meet the needs of the local and global community.*

   Fire Technology: Offers a variety of classes to meet the needs of our students. From entry level to professional development classes, the program is designed to meet the needs of our fire community.

3. Resource Management: *Manage human, physical, technological and financial resources to sustain fiscal stability and to effectively support the learning environment.*

Fire Technology: Director determines needs of the program through instructor and advisory committee input then prioritizes and allocates resources accordingly.

4. Student Success: *Provide a college environment that reaches-out-to and supports students, minimizes barriers, and increases opportunity and success through access and retention to enable student attainment of educational goals including completion of degrees and certificates, transfer, job placement and advancement, improvement of basic skills, and self-development through lifelong learning.*

Fire Technology: ensures students success by providing guidance and learning opportunities from initial contact and counselling to successful employment. Connects students with employment opportunities through our community partnerships with local, State and Federal fire agencies.

Identify and evaluate the Program Student Learning Outcomes

All Program Student Learning Outcomes link to the Institutional Student Learning. Outcomes in the following ways:

Communication Skills – *Ability to listen and read with comprehension and the ability to write and speak effectively:*

Fire Technology: students are required to be able to effectively communicate both verbally and in writing. Program faculty require students to prepare written reports, conduct research and make oral/written presentations, employing logic and argument to support conclusions.

Critical Thinking – *Ability to analyze a situation, identify and research a problem, propose a solution or desired outcome, implement a plan to address the problem, evaluate progress and adjust the plan as appropriate to arrive at the solution or desired outcome:*

Fire Technology: Students are taught problem solving skills and are exposed to a variety of scenarios and incidents. Instructors assist students with working through the steps of problem solving and understanding the ramifications of decisions.

Life Long Learning – *Ability to engage in independent acquisition of knowledge; ability to access information including use of current technology; ability to use the internet and/or library to access and analyze information for relevance and accuracy; ability to navigate systems:*

Fire Technology: Students learn how to research issues and evaluate the validity of information through the use of textbooks, periodicals, library resources, and internet resources. Additionally, students may input data and complete reports using various sources of technology such as computers, portable communication devices and the internet.

Personal/Interpersonal Responsibility – *Ability to develop and apply strategies to set realistic goals for personal, educational, career, and community development; ability to apply standards of personal and professional integrity; ability to cooperate with others in a collaborative environment for accomplishment of goals; ability to interact successfully with other cultures:*

Fire Technology: Students are instructed in ethical decision making and problem solving and are expected to exhibit ethical values and take personal responsibility in course work attempted. Faculty, with many years of experience maintain professional contacts with industry representatives and are able to channel motivated and qualified students into jobs in which basic skills and classroom theory that can be applied in real world situations. Further, students are encouraged to challenge themselves by competing in selection processes for positions in the Fire service and often receive personal mentoring from faculty members. Students are encouraged to act in a professional manner and treat all members of the public with respect and dignity.

Evaluate any changes in the program since last review. Include summary of Annual Updates completed since last review.

Since completion of the last program review in 2017 there have been many changes to the program. The Fire Technology program has been without an effective Director for approximately 4 years. During that time the programs credibility has diminished to a point where many of the agencies that previously relied on the college to provide trained new hires are looking elsewhere. Previously the program was designed to provide classes for our federal wildland fire agencies. These federal partnerships have since been lost but we will look to rekindle those relationships in the near future.

In 2016 a high school program was started to provide training to interested High School students to receive HS and college credits simultaneously. This program was highly successful for a few years. In 2018, After a change of instructors the program began to fail and was dissolved. To rekindle this partnership presents an opportunity for the Fire Program.

Since 2018 the program has entered into a rebuilding phase in which many California State Fire Training classes have been added to provide educational opportunities for structural firefighters and Cal Fire employees. These added classes will change the direction of the program and allow the Fire Technology program to enter into new partnerships with Cal Fire and local volunteer agencies. A new partnership has also been developed with the California Correctional Center (CCC) Fire House. With the added classes, the program has been able to increase our completion of certificates and degrees through the CCC fire house program. In fall of 2020 we were able to enter an agreement with Cal Fire to provide a Cal Fire Basic Firefighter academy to qualify students for hire with Cal Fire for the 2021 fire season. This academy has been successful and will be offered on a fall schedule.

Analyze program-related promotional materials/advertising as appropriate

Each semester, promotional materials are used to advertise the Fire Technology specific course offerings in the local media, to include Lassen County Times and SusanvilleStuff.com. Flyers are also posted on the LCC Fire technology website and on LCC social media sites. Partnering fire agencies also post LCC Fire Class flyers at their sites.

The Fire Technology program could benefit from more marketing and advertising locally and in the surrounding areas.
Hats and tee shirts with the LCC Fire Tech Logo could be given or sold to our students to advertise within the fire community.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action.

- Student Learning Outcomes and Course outlines to should be reviewed and approved to address any changing needs.
- Program changes, to include additional course offerings and added Certificates of achievements should be considered to utilize our current list of classes to promote program completions.
- More advertising and marketing needs to be created for the Fire Technology program.
- Program Faculty will work with high schools, allied agencies, and advisory board members to advertise and promote the Fire Technology program to our community.

II Student Outcomes

A. Trends and Patterns in Student Outcomes

Description/Evaluation:

Number of degrees and certificates awarded during the last four years.

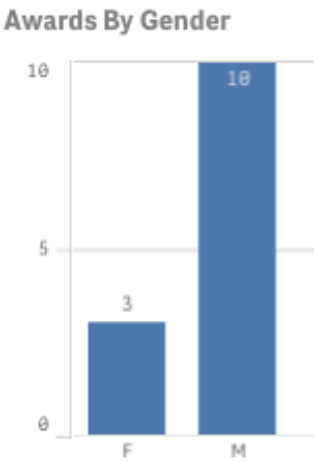
Available awards for the Fire Technology Program:

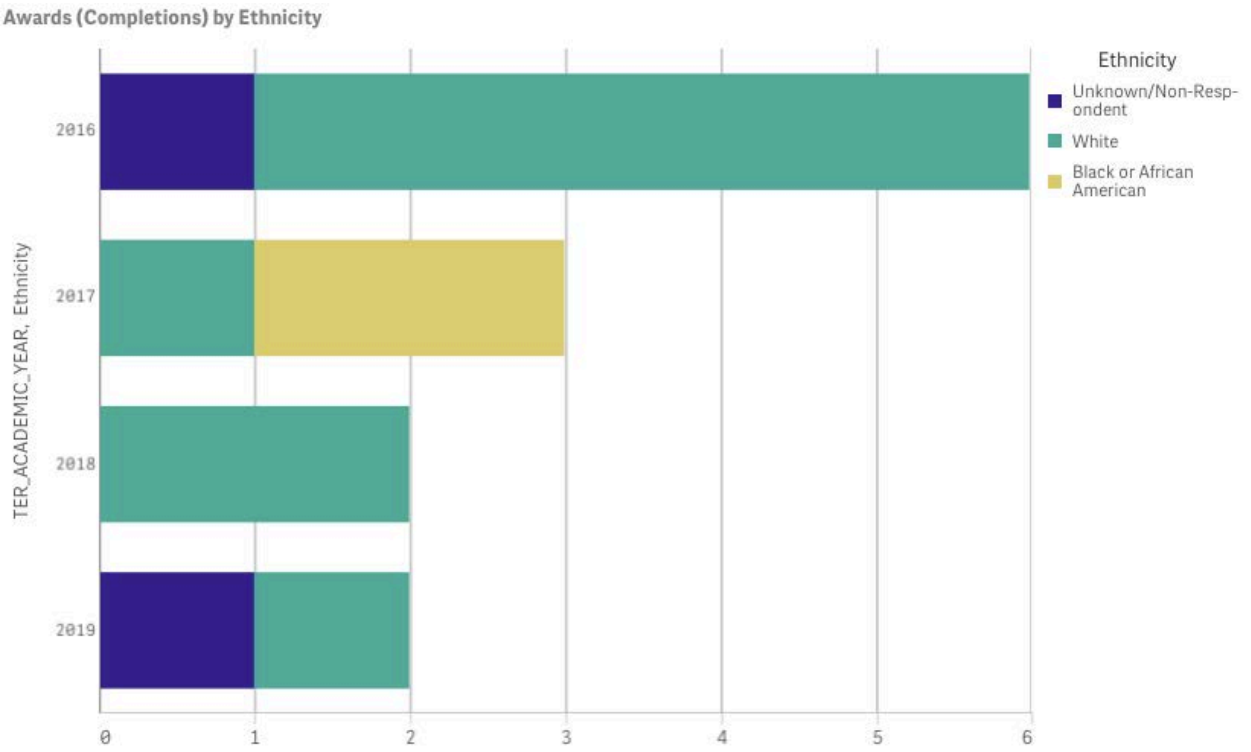
- Associate in Science Degree in Fire Technology
- Certificate of Achievement in Fire Technology
- Certificate of Accomplishment in Fire Technology
- Certificate of Accomplishment in Basic Fire Fighter

Academic Years 2016 through 2020

Awards by Type and Academic Year

Award Type	Academic Year 2016	2017	2018	2019
AS Fire Technology	2	2	1	2
Cert. of Achievement Fire Technology	4	1	1	-





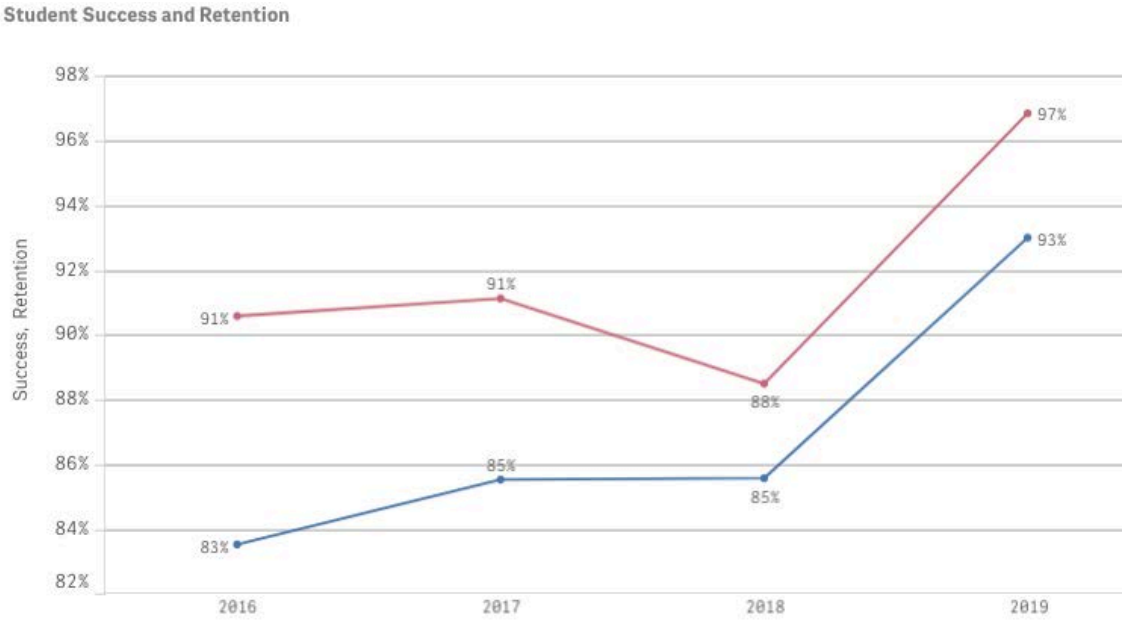
- **There were no locally awarded Certificates of Accomplishment for the Fire Technology program during the 2016-17 through 2019-20 Academic Years**

- Transfer numbers for the last four years- **There were no Fire Technology graduates who obtained subsequent higher level degrees from other institutions since May 2012**

Discussion: The above charts exemplifies the need to develop recruiting opportunities to include more diversity within our student ranks. In addition, Class outlines and Certificates must be updated to meet current industry standards in order for LCC Fire Technology to be relevant and competitive for recruiting new students. Develop and update classes that may be transferable to four year colleges. Initiate feasibility study into developing late start/short term general education classes. These classes would provide a pathway for degree completion for students who have unique scheduling requirements due to seasonal fire employment.

Completion, retention and success data for the last four years

Retention and Success by Academic Year



Retention = Red

Success = Blue

Discussion: **The increase in success and retention starting in 2018 is due to the introduction of several new classes that are lab based and dynamic. The new classes were introduced in 2018 which corresponds with the chart. These hands on types of classes are sought after by firefighters and have a high success rate.**

In general the Fire Technology program meets or exceeds the guidelines for retention and success. It will be our goal to maintain the numbers.

Student Success and Retention Rates by Modality + Location, Academic Year and Semester

Modllity + Location	Academic Year and Semester											
	2016						2017					
	SU		FA		SP		SU		FA		SP	
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention
Face to Face: Cdcr/Fci	73.5%	91.5%	81.0%	89.7%	81.4%	83.6%	83.4%	98.6%	86.9%	89.2%	86.2%	89.0%
Face to Face: Main Campus			86.0%	96.4%	88.8%	96.9%			90.6%	95.6%	92.4%	95.7%
Face to Face: Other					98.2%	100.0%	100.0%	100.0%	88.1%	100.0%	48.6%	68.6%
Hybrid			80.0%	100.0%	83.3%	100.0%			50.0%	100.0%		
Incarcerated Correspondence												
Internet									75.0%	75.0%		
Semester Averages	**73.5%**	**91.5%**	**82.3%**	**95.3%**	**87.9%**	**95.1%**	**91.7%**	**99.3%**	**78.1%**	**91.9%**	**75.7%**	**84.4%**

Modllity + Location	Academic Year and Semester												Modality + Location Averages, All	
	2018						2019							
	SU		FA		SP		SU		FA		SP			
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention
Face to Face: Cdcr/Fci	83.1%	85.6%	87.4%	89.5%	88.8%	92.2%	87.3%	94.3%	92.6%	96.1%	94.0%	97.4%	85.5%	91.4%
Face to Face: Main Campus	87.5%	87.5%	59.8%	65.8%	89.2%	96.6%	100.0%	100.0%	95.0%	98.3%	93.4%	95.6%	88.3%	92.8%
Face to Face: Other													83.7%	92.1%
Hybrid											100.0%	100.0%	78.3%	100.0%
Incarcerated Correspondence					100.0%	100.0%			100.0%	100.0%			100.0%	100.0%
Internet													75.0%	75.0%
Semester Averages	**85.3%**	**86.5%**	**73.6%**	**77.7%**	**92.7%**	**96.3%**	**93.7%**	**97.2%**	**95.9%**	**98.1%**	**95.8%**	**97.7%**	**85.5%**	**92.6%**

Discussion: **Looking at the Success and retention rates for each modality it appears that most of Fire Technology delivery methods are fairly equal. There was an anomaly of low success and retention rates in the Fall of 2018 for face to face on campus. This anomaly was possibly attributed to low success rates in the core classes for that time period. The Success and retention rate increased for the Spring but still showed poor success rates in our core classes. Additional class offerings for the Spring brought up the average success and retention rates. The average of all modalities is above 80% with a few exceptions. The lone internet class appears to be a success but falls short of the 80% target.**

Time of Day	Success	Retention
10:00AM	93.3%	100.0%
11:00AM	91.3%	100.0%
(blank)	87.8%	99.0%
9:00AM	93.8%	98.2%
7:00AM	66.7%	97.2%
12:00PM	93.3%	93.3%
8:00AM	86.6%	92.3%
5:00PM	63.6%	90.9%
6:00PM	81.7%	88.7%
8:30AM	83.3%	83.3%
5:30PM	63.6%	81.8%
2:00PM	73.3%	80.9%
10:45AM	40.0%	80.0%
11:45AM	57.1%	57.1%
Semester Averages	**81.8%**	**90.4%**

Discussion: Success and retention appears to be at higher rates in classes that start in the mornings. Afternoon classes show weaker results up to 6:00 pm at which point the results show a small improvement. If at all possible classes should be scheduled for mornings. Start times are usually dictated by the availability of the adjunct instructor. Some classes are scheduled in late afternoon or early evening to accommodate working students. The schedule time of classes is usually dictated by type of students; i.e.. College student vs. working adult.

Analyze program effectiveness based on available quantitative data and qualitative experiences.

The Retention and Success rates for the Fire Technology program remained relatively consistent from 2016 to 2018. The 10% increase in 2019 can be attributed to adding short term lab classes that have low dropout rates and a high level of success. Continuing with these classes and ensuring quality instruction from all classes will improve both the retention rate and the success rate for all classes.

The degree/certificate awarded rate has been consistent for the last 2 academic years which saw 2 awards earned for each year. This is down from a high of 6 awards earned from 2016. In Addition, the diversity of students has been very limited to mainly white males.

Although there are opportunities for four year degrees in Fire Science and Fire Administration there have been no students that have transferred to a four year school in the past 8 years. Note that our Fire Technology has in the past focused on training for employment, and transfer has not been emphasized nor needed for entry-level employment in the Fire service. Although our core are Science course are transferable, they have not been articulated. The future articulation of these courses will enhance transfer information previously available to our fire students, thus creating a pathway for more Fire students to consider furthering their education through transfer. This may be due to a lack of information available to the students.

Planning Agenda:

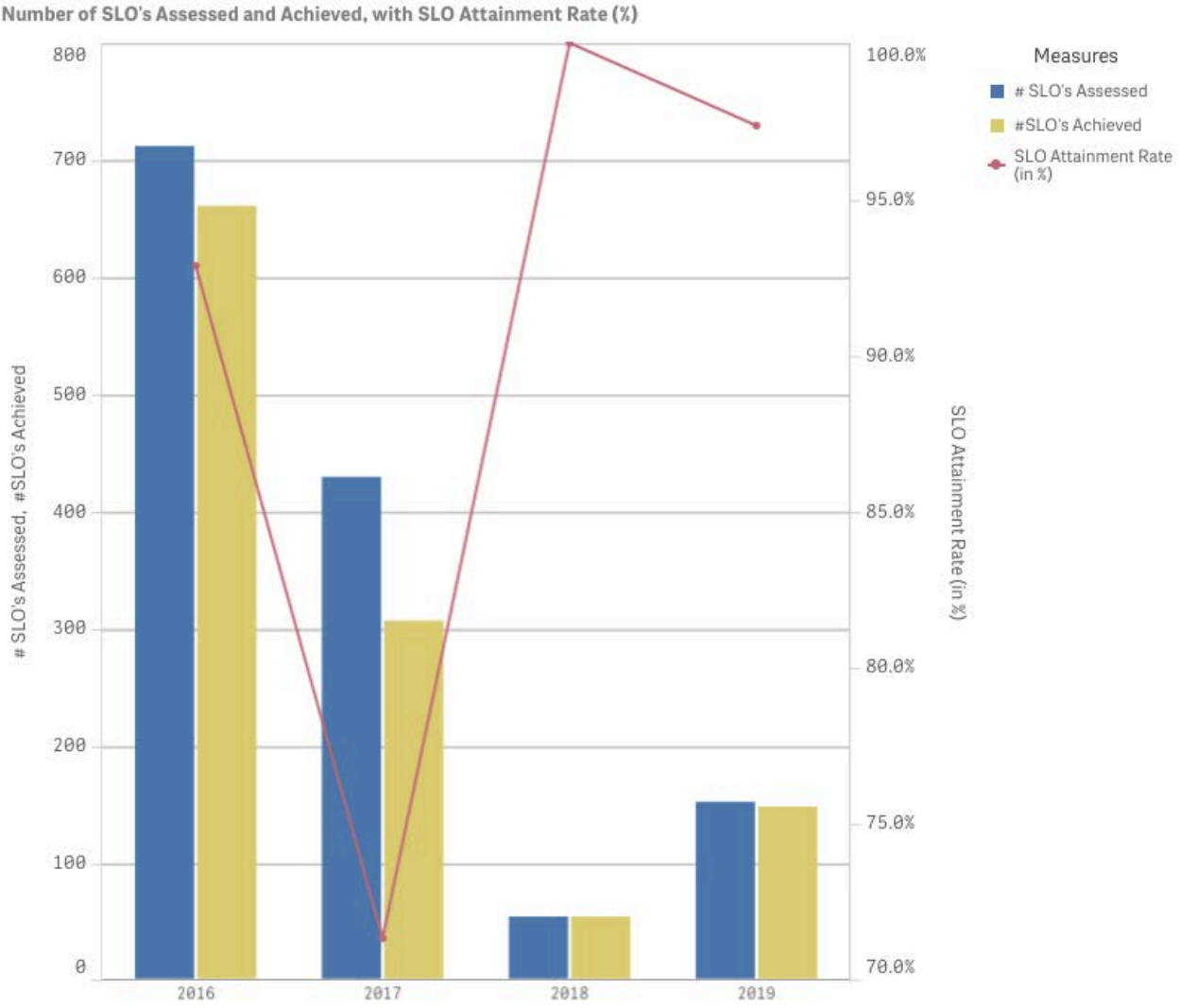
List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action.

- Increase recruiting from local high schools. Evaluate feasibility of partnering with Lassen HS for dual enrollment.
- Evaluate course delivery modalities and determine most effective method to increase student success and to increase recruitment possibilities to underserved communities.
- Evaluate the feasibility of late start/short term general education classes to accommodate students who have unique schedules due to fire season employment.
- Develop certificates of achievement to give direction to students and improve on student success that can lead directly to employment.
- Develop pathway for students to transfer to a four year program
- Develop recruiting plan to increase gender and ethnic diversity within the Fire Technology program.

B. Student Learning Outcome Assessment

Description/Evaluation:

1. Attach an SLO assessment summary as provided by Office of Institutional Effectiveness.
2. Provide an analysis of findings of the assessments completed and recommendations being made in individual assessments. Consider the impact or influence of the assessment results at the program level. Consider how SLO results may be leveraged to support equipment, facility, staffing, or other budget and planning need and include the justification in your analysis.



Student Learning Outcomes (SLO's) by Modality and Academic Year

Modality	Measure	Academic Year				Modality Averages, All Years	Modality Totals, All Years
		2019	2018	2017	2016		
Correspondence	% Attained	100%	100%	-	-	100%	
	Assessed	9	12	-	-		21
	Achieved	9	12	-	-		21
Face-to-Face	% Attained	97%	100%	71%	93%	90%	
	Assessed	140	41	416	707		1,304
	Achieved	136	41	294	657		1,128
Hybrid	% Attained	100%	-	75%	80%	85%	
	Assessed	2	-	4	5		11
	Achieved	2	-	3	4		9
Internet	% Attained	-	-	100%	-	100%	
	Assessed	-	-	9	-		9
	Achieved	-	-	9	-		9

Measure	Academic Year				Modality Averages, All Years	Modality Totals, All Years
	2019	2018	2017	2016		
Annual % Attained Averages:	99%	100%	82%	86%	92%	
Annual Assessed Totals:	151	53	429	712		1345
Annual Achieved Totals:	147	53	306	661		1167

Student Learning Outcomes (SLO's) by Course and Academic Year

Course	Academic Year	Annual Totals			Course Totals		
		# Assessed	Achieved	% Attained	# Assessed	Achieved	% Attained
EMT-21	2016	10	0	0%	29		0%
EMT-21	2017	19	0	0%			
EMT-21	2018	0	0	-			
EMT-21	2019	0	0	-			
FS-3	2017	22	22	100%	35	34	97%
FS-3	2018	2	2	100%			
FS-3	2019	11	10	91%			
FS-4	2017	18	17	94%	18	17	94%
FS-4	2018	0	0	-			
FS-4	2019	0	0	-			
FS-5	2017	25	24	96%	37	36	99%
FS-5	2018	6	6	100%			
FS-5	2019	6	6	100%			
FS-6	2016	19	17	89%	22	20	95%
FS-6	2018	3	3	100%			
FS-8	2016	13	8	62%	13	8	62%
FS-13	2016	20	19	95%	33	32	92%
FS-13	2017	9	9	100%			
FS-13	2018	4	4	100%			
FS-13	2019	0	0	-			
FS-14	2016	18	17	94%	45	41	94%
FS-14	2017	17	17	100%			
FS-14	2018	2	2	100%			
FS-14	2019	8	5	63%			
FS-20	2016	7	7	100%	7	7	100%
FS-20	2019	0	0	-			
FS-26	2017	12	12	100%	27	27	100%
FS-26	2019	15	15	100%			
FS-49	2016	5	4	80%	46	44	93%
FS-49	2017	4	3	75%			
FS-49	2018	12	12	100%			
FS-49	2019	25	25	100%			
FS-50	2019	0	0	-	0	0	-
FS-51	2017	38	38	100%	44	44	100%
FS-51	2018	6	6	100%			
FS-54	2017	21	21	100%	21	21	100%
FS-54	2019	0	0	-			
FS-56	2016	8	7	88%	8	7	88%
FS-57	2017	17	17	100%	17	17	100%
FS-57	2019	0	0	-			
FS-58	2019	15	15	100%	15	15	100%
FS-59	2017	1	1	100%	6	6	100%
FS-59	2018	5	5	100%			
FS-59	2019	0	0	-			

Discussion:SLO assessment within the Fire Technology program appears to be a valuable way of assessing the student's learning. Over the course of this evaluation period, the average SLO assessments have tapered during the past 2 academic years. This is attributed to a lack of knowledge within the adjunct instructor ranks which led to a sharp drop off of SLO forms being completed. The statistics revealed that even though there was a decline in SLO assessments with few exceptions the SLO attainment rate was mostly above 80% over the course of the evaluation period. The SLO assessments should be completed at the end of each course in order to get accurate information and statistics.

Planning Agenda:

List recommendations and actions necessitated by the above evaluation of SLO results.

- Monitor SLO attainment closely over the next evaluation period and make adjustments as needed.
- Ensure all Fire Technology Instructors are familiar with the SLO process and are completing the SLO's at the end of each course.
- Review all course outlines to ensure SLO's are relevant to industry standards

C. Student Evaluation Summary

The student survey portion of the evaluation procedure is designed to solicit comments concerning the program only, and is not an evaluation of instructors (See Attachment F, Student Survey).

Description/Evaluation:

- No Student Evaluation data was available at the time of this report

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action.

- Work with LCC administration to develop and administer anonymous course evaluations so the data can be analyzed for future program reviews.

III. Curriculum

A. Degrees and/or Certificates

Description/Evaluation:

- List degree and/or certificates offered in the program and attach the approved course of study or two-year plan for each degree and certificate. Degree and certificate student learning outcomes, if different from program student learning outcomes, should be included in this section.

The Fire Technology program degrees and certificates are outlined in Appendix A:

.The Fire Technology program, degree and certificate learning outcomes are reviewed when curriculum is reviewed. They are also reviewed by the advisory committee. The COA for Basic firefighter is currently being changed to better fit the needs of the hiring agencies. There is a potential need for new courses and certificates to cater to the educational requirements of individuals who are promoting through the ranks i.e...stackable certificates. The need will be further discussed with the advisory committee. There are few opportunities for 4 year Fire Technology degrees within California. California State University, Los Angeles offers a Bachelor of Science degree in Fire Protection Administration and Technology, Cal Poly San Luis Obispo Offers a Bachelor of Science degree in Forest and Fire Science. Additionally, the California State University, Sacramento is currently working on a Fire Administration degree but there is an unknown timeline for completion. There are online opportunities for 4 year degrees across the nation. Any opportunities for transfer should be evaluated.

Advisory Committee:

The Fire Technology Advisory Committee Last met Nov 13th 2019, prior to that the last meeting was March 3rd 2017. A review of the committee members revealed that a majority have retired, a new list of members should be selected as soon as possible for approval by the administration. See Senate approved Advisory Committee as of 1/4/2021 and Minutes from last Meeting 11/14/2019 (Appendix B)

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning table at the end of the section for any recommendations requiring institutional action.

- Select and maintain a CTE advisory committee roster with current professionals in the field. (2020 approved roster in Appendix B)
- Schedule and conduct annual CTE advisory committee meeting as required.
- Evaluate opportunities for students to transfer to a four year degree and ensure transferability of LCC Fire Tech Classes.
- Ensure course SLO's , and program PLO's are in alignment.
- Revise student academic planning schedule with updated classes

B. Courses

Description/Evaluation

1. Identify courses added or deleted from the instructional program since the last instructional program review.
   The Following courses have been added to the Fire Technology program since the last IPR: FS-65C Wildland Fire Apparatus, FS-72B Hazmat Decon, FS-92A-E State Fire Training Company Officer Series, FS-50 Rapid Intervention Ops, FS-96 Low Angle Rope Rescue Ops, FS-80 Firefighter Survival, FS-64B Instructor II. As of this report no courses have been deleted from the program.

2. Each course offered within the instructional program must be reviewed for accuracy and currency

The following is a table of Curriculum Review and dates of last review for Fire Technology Classes

Fire Technology Instructional Program Review:

Status of Curriculum Review October 6, 2020

Course	**Curriculum Committee Review Completed**	**Curriculum Committee Review <u>Not</u> Completed**
FS 3 Fundamentals of Fire Prevention	10/01/2019	
FS 4 Fire Protection Equipment and Systems	10/01/2019	
FS 5 Fire Organization and Management	10/01/2019	
FS 6 Building Construction for Fire Protection	10/01/2019	
FS 8 Wildland fire Suppression	01/31/2017	
FS 13 Fire Behavior and Combustion	10/01/2019	
FS 14 Principles of Fire Safety and Survival	10/01/2019	
FS 20 First Aid-CPR or Public Safety	09/15/2020	
FS 23 Firing Operations S-219	01/31/2017	
FS 26 Basic Air Operations (S-270)		11/15/2016
FS 50 Rapid Intervention Crew (RIC) Operations	10/06/2020 New 9/17/2019	
FS 51 Introduction to Fire Technology Careers	03/03/2018	
FS 52 Incident Command System (I-200/300)		11/15/2016
FS 53 ICS 100		12/06/2016

FS 54 NIMS 700A	01/31/2017	
FS 55 Fire Investigation	05/15/2018 Inactive	
FS 56 Helicopter Crew Member		11/15/2016
FS 57 Vehicle Extrication	10/06/2020	
FS 58 Introduction to Wildland Fire BehaviorS-190		12/06/2016
FS 59 Confined Space Awareness	10/06/2020	
FS 60 Wildland Firefighter (CalFire Basic Training)	04/21/2020	
FS 60A Basic Fire Crew Firefighter	03/03/2020	
FS 61 Basic Firefighter Training (Basic 32)	04/21/2020	
FS 64 Fire Instructor 1 Instructional Methodology	10/06/2020	
FS 65A Driver Operator 1A	10/06/2020	
FS 65B Driver Operator 1B	10/06/2020	
FS 65C Driver Operator 1C	10/06/2020 New 09/17/2019	
FS 66 Fire Prevention 1	10/17/2017 Inactive	
FS 68 Essentials of Firefighting	02/21/2017 New	
FS 69 Fire Management 1	10/17/2017 Inactive	
FS 70 Heavy Equipment Boss (S-236)	04/02/2019	

FS 70A Single Resource Boss Academy	04/02/2019	
FS 70B Engine Boss (Single Recourse)		11/15/2016
FS 70C Single Resource Crew Boss	02/21/2017	
FS 72 HazMat First Responder	10/06/2020	
FS 72A HazMat First Responder Refresher	10/06/2020	
FS 73A Incident Business Management (S-260)		05/06/2014
FS 73B Applied Incident Business Management(S261)		05/06/2014
FS 74 Fire in the Interface (S-215)	04/02/2019	
FS 75 Fire Behavior (S290)	04/02/2019	
FS 76 Firefighter Type 1 (Squad Boss) S-131		08/18/2015
FS 77 Human Factors on the Fireline L-180	11/15/2016	
FS 78 Fellowship to Leadership L-280		08/18/2015
FS 79A Ground Support Unit Leader (S-355)		11/18/2014
FS 80 Firefighter Survival	10/06/2020	
FS 81 Wildland Firefighter Safety and Survival	10/06/2020	
FS 82 Fire Command 1A	10/17/2017 Inactive	
FS 83 Fire Command 1B	10/17/2017 Inactive	
FS 84 Lessons Learned (Fatality Fire Case Studies)		11/15/2016

FS 85 Understanding Maps, Compass & GPS		11/15/2016
FS 86 Emergency Vehicle Operation		11/15/2016
FS 87 Expanded Dispatch Recorder		11/15/2016
FS 88 Initial Attach Incident Commander	05/15/2018 Inactive	
FS 89 Wildfire Chainsaws (S212)	03/03/2020	
FS 90 Portable Pumps and Water Use (S211)		11/15/2016
FS 91 I-suites Incident Base Automation	01/31/2017 New	
FS 92A Company Officer 2A-Human Resources Management for Company Officers	10/06/2020	
FS-92B Company Officer 2B - General Administrative Functions for Company Officers	10/06/2020 New 02/11/2020	
FS-92C Company Officer 2C - Fire Inspections and Investigation for Company Officers	10/06/2020 New 02/11/2020	
FS 92D Company Officer 2D: All-Risk Command Operations	10/06/2020 New 02/11/2020	
FS-92E Company Officer 2E - Wildland Incident Operations for Company	10/06/2020 New 02/11/2020	
FS 93 Fire Fighter I	03/21/2017 New	
FS 94 Strike Team Leader (S330)	02/21/2017 New	
FS 96 Low Angle Rope Rescue	10/06/2020	

	10/06/2020 New 09/17/2019	
FS 98.18 Annual Fireline Safety Refresher Training	11/15/2016	
FS 98.20 Annual Hired Equipment Refresher	03/20/2018	
FS 98.21 Volunteer fire Academy	12/03/2019	
FS 156 Pump Operation		08/18/2015
AS Fire Technology	09/19/2019	
CA Fire Technology	09/19/2019	
CA Basic Wildland Firefighter	10/06/2020 New	
COA Basic Firefighter	Replaced with CA above	
COA Fire Technology	09/19/2019 New 01/31/2017	

Mr. Dan Weaver, Subject Area Faculty Signature Date

Mr. Chad Lewis, Curriculum and Academic Standards Committee Chair Signature Date

Ms. Roxanna Haynes, Dean of Instructional Services Date

Discussion: As of the due date of this IPR, several courses offered had not been reviewed for accuracy and currency.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning table for any recommendations requiring institutional action.

- Continue to review and update course outlines in a timely manner.

C. Articulation/Integration of Curriculum

Description/Evaluation:

1. Attach a tabular comparison of Lassen Community College courses articulating with UC and CSU, indicating courses with approved C-ID designations as applicable (Obtain copies of Articulation Agreements from the Transfer Center)
2. Provide a narrative reviewing the Lassen Community College courses and courses at four-year institutions for course alignment. (i.e. two courses at Lassen needed to articulate with one course at UC).and the units requirements for Lassen Community College courses as compared to four-year institutions.

- There are no articulation agreements with any CSU colleges and Lassen College Fire Technology.

Planning Agenda:

- Complete Student Services Planning table for any proposed changes to articulation or C-ID designation
- Work with LCC Articulation Officer to develop articulation agreements for CSU four year schools

III. Scheduling and Enrollment Patterns

Description/Evaluation:

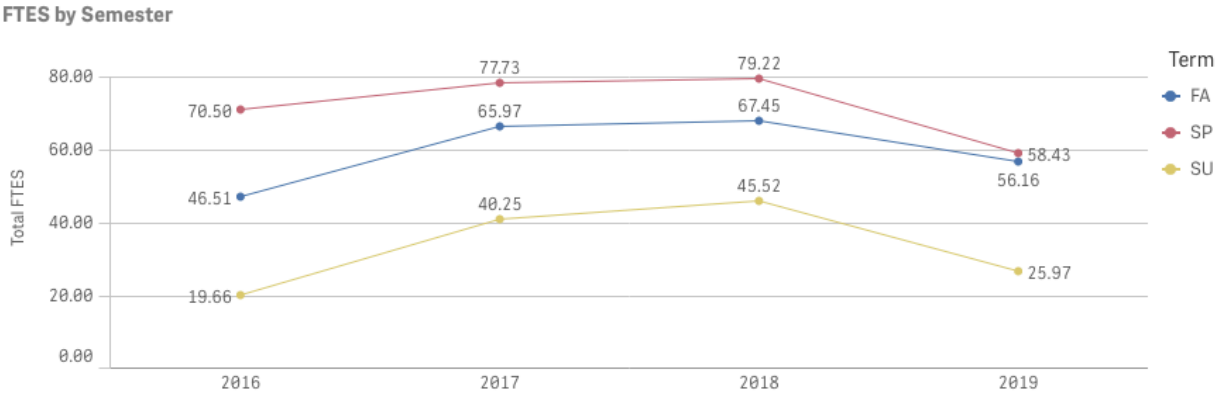
1. Describe and explain any deviation from the two-year plan in course scheduling during the last four years.

- Currently, the two-year plan is under revision and will be updated in 2021.
- The course offerings from the 2 year plan have been off schedule
- A course offering schedule should be set up for the CCC Firehouse in order to facilitate a certificate of achievement in one year.

2. Evaluate the relationship between schedule, enrollment patterns and FTE generated statistics.

FTES by Time of Day, Academic Year and Semester

Time of Day	Academic Year and Semester												Time of Day Totals, All Years
	2016			2017			2018			2019			
	SU	FA	SP	SU	FA	SP	SU	FA	SP	SU	FA	SP	
8:00AM	19.7	41.1	57.9	36.1	55.2	70.6	45.5	63.4	67.5	25.0	48.3	50.0	580.2
6:00PM		2.0	3.6		2.7	1.7		1.7	2.7	1.0	1.9	6.0	23.4
9:00AM			3.6	4.2	0.6	0.6			5.0		1.2		15.3
2:00PM		1.7			1.1	3.6		1.7	0.6		0.6	1.2	10.3
(blank)		0.3	0.6	0.0	2.1	0.0			1.2		4.1	1.3	9.6
7:00AM			4.3										4.3
11:00AM					2.6								2.6
10:00AM					1.8								1.8
8:30AM									1.7				1.7
5:30PM		1.4											1.4
5:00PM								0.6	0.5				1.2
11:45AM						0.7							0.7
10:45AM						0.5							0.5
12:00PM			0.4										0.4
Semester and Annual Totals	**19.7**	**46.5**	**70.5**	**40.3**	**66.0**	**77.7**	**45.5**	**67.5**	**79.2**	**26.0**	**56.2**	**58.4**	**653.4**
	136.7			**184.0**			**192.2**			**140.6**			


FTES by Semester
Total FTES
80.00
60.00
40.00
20.00
0.00
2016
2017
2018
2019
70.50
77.73
79.22
58.43
46.51
65.97
67.45
56.16
19.66
40.25
45.52
25.97
Term
FA
SP
SU

FTES by Modality, Class (Section), Academic Year and Semester (Pg 1 of 4)

Modality	Class (Section)	Academic Year and Semester												Class (Section) Totals, All Years
		2016			2017			2018			2019			
		SU	FA	SP	SU	FA	SP	SU	FA	SP	SU	FA	SP	
Face to Face	EMT-21-K3714									2.2				2.2
	EMT-21-K5165				2.3									2.3
	EMT-21-K5174							1.6						1.6
	EMT-21-M0748		1.4			0.5			0.6					2.5
	EMT-21-M0749											1.2		1.2
	EMT-21-Y3662											2.9		2.9
	FS-13-K5135										1.0			1.0
	FS-13-M0706		0.7						1.2					1.8
	FS-13-M0736		1.2											1.2
	FS-14-K5412						1.1			1.2			1.1	3.3
	FS-14-M3863												1.0	1.0
	FS-14-M5409			1.8			0.6			0.6				3.0
	FS-156-K4875						0.5							0.5
	FS-156-M0882					0.4								0.4
	FS-20-M4746			0.1										0.1
	FS-20-O4030			0.5										0.5
	FS-20-O4941			0.2										0.2
	FS-26-K3859												0.4	0.4
	FS-26-K5169				0.4									0.4
	FS-26-M2058					0.1								0.1
	FS-3-K4902						1.1						1.3	2.3
	FS-3-M3915						0.9						1.2	2.0
	FS-3-M4024						0.4			0.3				0.7
	FS-4-K2057					0.9								0.9
	FS-4-M0835					0.6			0.6			0.7		1.9
	FS-4-M2053					0.5								0.5
	FS-49-K4945											0.3	1.1	1.4
	FS-49-Y0150		0.3			0.5						0.0		0.8
	FS-49-Y3807												0.0	0.0
	FS-49-Y4007			0.5			0.0						0.1	0.6
	FS-49-Y4192			0.1										0.1
	FS-49-Y5344				0.0									0.0
	FS-49-Y5777				0.0									0.0
	FS-5-K2060					0.9						1.2		2.1
	FS-5-M0863					0.5								0.5
	FS-5-M2049					0.5			0.6			0.6		1.7
	FS-5-M4976						0.2			0.4				0.6
	FS-5-O6405						0.5							0.5
	FS-5-O6408						0.7							0.7
	FS-50-M3846												0.2	0.2
	FS-51-M2055								0.1					0.1
	FS-51-M2059					0.1								0.1
	FS-51-M3803						0.0							0.0
	FS-51-M6008									0.1				0.1
	FS-51-O1048					0.5								0.5
	FS-51-O1049					0.7								0.7
	FS-54-K0959											0.2		0.2
	FS-54-O0958					0.2								0.2
	FS-54-O0959					0.2								0.2
	FS-56-O5170			0.6										0.6

FTES by Modality, Class (Section), Academic Year and Semester (Pg 2 of 4)

Modality	Class (Section)	Academic Year and Semester												Class (Section) Totals, All Years
		2016			2017			2018			2019			
		SU	FA	SP	SU	FA	SP	SU	FA	SP	SU	FA	SP	
Face to Face	FS-57-K0763								0.6			0.5		1.0
	FS-57-K6517				0.9									0.9
	FS-57-M1054											0.5		0.5
	FS-57-M4443			0.3										0.3
	FS-58-K3864												0.2	0.2
	FS-59-K3710									0.1			0.1	0.3
	FS-59-M2062								0.1			0.1		0.2
	FS-59-M3798						0.2			0.1			0.1	0.4
	FS-6-M0101		1.0						1.1					2.0
	FS-6-M0707		0.9											0.9
	FS-60-M5325			2.7		2.3								5.0
	FS-60A-K0538			3.0										3.0
	FS-60A-K1629								3.5			2.7		6.1
	FS-60A-K1630								3.8			1.7		5.6
	FS-60A-K1631								3.0			3.5		6.4
	FS-60A-K1632		2.7			2.3								4.9
	FS-60A-K1633								2.2			2.1		4.3
	FS-60A-K1634		0.7			3.6								4.3
	FS-60A-K1635								3.4			2.4		5.8
	FS-60A-K1636		2.9			2.3								5.2
	FS-60A-K1637								2.8			2.9		5.7
	FS-60A-K1638		1.7			3.2								4.9
	FS-60A-K1639								4.4			3.0		7.4
	FS-60A-K1640		4.8			2.2								6.9
	FS-60A-K1641								4.4			3.0		7.4
	FS-60A-K1642		1.6			2.0								3.6
	FS-60A-K1643								4.5			3.6		8.1
	FS-60A-K1644		1.9			3.6								5.5
	FS-60A-K1645								4.1			1.6		5.8
	FS-60A-K1646		3.3			3.4								6.7
	FS-60A-K1647								5.0			2.6		7.6
	FS-60A-K1648		1.5			2.8								4.3
	FS-60A-K1649								3.7			2.6		6.3
	FS-60A-K1650		1.6			2.9								4.5
	FS-60A-K1651								3.0			2.4		5.4
	FS-60A-K1652		1.7			2.3								4.0
	FS-60A-K1653								2.5			1.9		4.4
	FS-60A-K1654		3.1			2.7								5.8
	FS-60A-K1655								3.6			5.1		8.7
	FS-60A-K1656		1.7			2.2								3.9
	FS-60A-K1657								4.2			2.6		6.8
	FS-60A-K1658		3.2			4.8								8.0
	FS-60A-K1660		2.7			2.9								5.7
	FS-60A-K1664		4.8			4.1								8.9
	FS-60A-K1666		1.3			4.7			3.3			2.5		11.8
	FS-60A-K4752			1.2										1.2
	FS-60A-K4753									4.5				4.5
	FS-60A-K4754			2.1			4.5			3.7				10.3
	FS-60A-K4755						2.2			4.1			1.9	8.2
	FS-60A-K4756			2.9			2.5						2.3	7.7
	FS-60A-K4757						3.3						3.6	6.9
	FS-60A-K4758			2.2			3.1						2.9	8.2

FTES by Modality, Class (Section), Academic Year and Semester (Pg 4 of 4)

Modality	Class (Section)	Academic Year and Semester												Class (Section) Totals, All Years
		2016			2017			2018			2019			
		SU	FA	SP	SU	FA	SP	SU	FA	SP	SU	FA	SP	
Face to Face	FS-61-M2063								1.0					1.0
	FS-61-M5326							0.6						0.6
	FS-61-M5405			1.4			1.5			1.4				4.4
	FS-61-O1504					1.3								1.3
	FS-61-O1505					1.9								1.9
	FS-90-K5425						0.5						0.5	0.9
	FS-90-M5425			0.1										0.1
	FS-91-O5684			0.2										0.2
	FS-92-M3696									0.5				0.5
	FS-96-K5136										0.5			0.5
	FS-96-M3875												0.5	0.5
	FS-98.18-M4419			1.0										1.0
	FS-98.18-M4506			0.3										0.3
	FS-98.18-O5655			0.4										0.4
	FS-98.18-O5681			0.2										0.2
	FS-98.18-O5688			0.4										0.4
	FS-98.20-M4502			0.5			0.2							0.7
	FS-98.20-M4773										0.3			0.3
	FS-98.21-M4453			1.7			1.1			0.9			1.2	4.9
	FS-64-M0983											0.9		0.9
	FS-65A-K3712									0.9			0.7	1.5
	FS-65A-M3865												0.8	0.8
	FS-65B-K3713									0.9			0.8	1.6
	FS-65B-M3866												0.7	0.7
	FS-65C-K3873												0.7	0.7
	FS-70-M3692									0.8				0.8
	FS-70A-M5432			1.0						1.1				2.1
	FS-72-K1291					0.4								0.4
	FS-72-M1291								0.2					0.2
	FS-72-M5085						0.4			0.0			0.5	1.0
	FS-72-M5865			0.2										0.2
	FS-74-K3805						0.6						0.6	1.2
	FS-74-M5418			0.5						0.5				1.1
	FS-75-M4028			0.8						0.3				1.1
	FS-76-K5416						0.2							0.2
	FS-76-M5416			0.1										0.1
	FS-77-M4745			0.1										0.1
	FS-8-M3540			1.6										1.6
	FS-80-K3711									0.2				0.2
	FS-80-M3874												0.4	0.4
	FS-81-M3725			0.2			0.3						0.1	0.5
	FS-85-M4744			0.2										0.2
	FS-87-M5411			0.4										0.4
	FS-89-K5420												0.7	0.7
	FS-89-M5424			0.4										0.4
	FS-89-O5434				1.0									1.0
Correspondence	FS-49-I0984											0.9		0.9
	FS-49-I4192									1.2				1.2
Internet	FS-13-N0736					1.2								1.2
Semester and Annual Totals		19.7	46.5	70.5	40.3	66.0	77.7	45.5	67.5	79.2	26.0	56.2	58.4	653.4
		136.7			184.0			192.2			140.6			

- Depending on the type of class (Short term lab or semester long) and what students were targeted for the class the 0800-0900 start time is conducive to short term 1-5 day classes. For students who work full time the data shows that 1800 start time is best. The 1400 start time is when most core classes are offered but is only attractive for full time students.
- Fall and Spring semesters bring the most students while spring has been consistent with bringing the most FTE's. Spring is typically a time when most FF's start to train and prepare for the next fire season So more classes are typically scheduled at LCC.
- There were 3 instances of 2 sections of core classes that were offered in the same semester at different times. There was no significant difference in FTE's between the 2 sections offered.
- To get more accurate data it may be prudent to separate out the FS-60A classes.

3. Using FTE data provided, evaluate how the scheduling of courses within the program has served the needs of a variety of students (e.g. day, evening, single parents, employed full-time). Include the following considerations:
   a. Number of sections (too many/too few to serve student needs)

   b. Variety of times (three times a week, twice a week, one day a week and morning/afternoon/evening)

   c. Length of courses (traditional semester/short term)

   d. Method of delivery (traditional/technology-mediated/correspondence delivered instruction).

Discussion:

- Due to the nature of the fire service and fire service learners, face to face is typically the most effective modality of delivery.
- Most FS classes are short term lab classes or late start/early release classes that cater to a FF's or perspective FF's that are hired by May 1st. These modified semesters are highly desired and contribute to the success of the program. Due to the unpredictability of fall fire season most FF's do not sign up for classes in the fall.
- Online classes do not have enough data in FTE's to make an opinion
- Hybrid classes have a little more success than online, but is due to the work study program. In order to develop other markets (Alturas) it may be prudent to develop some hybrid classes that can be offered over the internet.
- As mentioned in the previous discussion time of class delivery depends on the target students.

Planning Agenda

Complete Academic Planning table (see below) for any proposed changes in the schedule that might improve enrollment patterns and better meet student needs.

- Develop and update course outlines to allow for different modes of delivery, including online and hybrid.
- Expand face to face course offerings, recruiting Adjunct instructors to also teach courses during the evening hours.
- Update two year academic plan to meet the needs of students, and different delivery options.
- Evaluate modal success and revise plans as needed.
- Develop a CCC Firehouse class schedule to allow for certificate of achievement completion in one year.

IV. Equipment

Description/Evaluation:

1. List capital outlay equipment, age of equipment and replacement schedule

- The Fire Technology department uses shared classroom space for instruction. This situation is adequate at this time.
- The full-time Fire Technology Director and Instructional Site and Administrative Coordinator located in the Creative Arts Building Room 123 has the following equipment:

1 Dell laptop computer (Director)

3. 2-Black office chairs with casters and arms

5. 2-large filing cabinets

6. Xerox 5955 printer/copier

7. 2 phones

8. Desk top Dell computer with 2 dell monitors

9. HP color laser jet 5550 printer

- Fire Equipment Cache: The Fire Technology Department has an equipment Cache with an estimated $1,000,000 worth of Structural and wildland firefighting equipment as well as Auto Extrication and Rope Rescue equipment. There currently is no accurate inventory or valuation for this equipment. There are Items such as ladders and Self Contained Breathing Apparatus(SCBA) that require annual inspection and maintenance that has not been performed or recorded. This would be a liability issue if any students were to be injured.
- The Program also has 1- Type one Fire Engine, 1-Type 2 Fire engine and 1-Type 3 fire engine. These engines have not been maintained well and will need to be sent in for some initial repairs and be placed on a maintenance schedule.

- Budgeting for maintenance and repairs for the equipment and engines will have to be addressed for the future and made a priority.
- Firefighting equipment is adequate for current class offerings however future plans are for starting a Firefighter 1 testing site that will necessitate adding additional equipment to meet the needs of a State Fire Training Accredited Academy.

It is unknown if there is a replacement schedule for any of the above listed equipment.

2. Identify any existing equipment maintenance/service agreements
    - There are no equipment maintenance or service agreements for the Fire Technology program.
3. Evaluate the condition of capital outlay equipment in light of the replacement schedule and available funds.

    - The office equipment is in fair condition. Equipment can be evaluated when we move into our new office in the portables.
    - Most fire equipment in the Cache is in good condition but will need to be maintained.
    - The 3 fire apparatus are in fair condition and are in need of service and maintenance. There are some functions of the pump and valves that are inoperable. The tires are in fair to poor condition on all 3 of the apparatus and will be due for replacement soon. These apparatus are frequently used for our academies and our driver operator classes and are driven on the highway's often.
    - Currently there is no Maintenance budget for the fire equipment and engines. In order to provide safe, operating equipment for our students the equipment must be maintained.
4. Evaluate the effectiveness of and need for additional maintenance/service agreements.

- There are no maintenance or services agreements for the FS program.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, Facilities Planning, or Technology Planning tables as appropriate for any recommendations requiring institutional action.

- Hire a part time cache manager to maintain equipment and apparatus and assist with developing an accurate inventory.
- Prioritize need for tire replacement on apparatus and budget for tire replacement on 1 engine each year for 3 years

- Develop and administer an inspection maintenance agreement for the ladders and Self Contained Breathing Apparatus(SCBA) to insure the safety of our students.
- Complete remodel of office and classroom space in Portable N
- Develop Maintenance budget for fire equipment Estimated at $10000 line item for fire budget,

V: Outside Compliance Issues (if appropriate for program)

- All training and fireground ladders must be certified by a third party inspection firm
- All operable Self Contained Breathing Apparatus (SCBA's) used in conjunction with fire training shall be flow tested and inspected annually.
- SCBA compressed air bottles shall be hydro tested every 5 years with a life span of 15 years.

Section Two: Human Resource Planning

I. Program Staffing

Description/Evaluation:

1. List the current staffing for the program include: full-time and part-time faculty positions, instructional assistants and classified staff

There is one full-time faculty member employed with the Department. A list of numerous Adjunct faculty is listed in Appendix D. The Department does have a full time Instructional Site Administrative Coordinator.

2. This section provides an opportunity for analysis and justification of projected staffing needs to support the program. Clerical support by the Office of Academic Services and work-study needs may be included.

   The program would benefit greatly by hiring a part time Cache Manager to maintain the estimated 1 million dollar inventory of fire equipment and apparatus. Currently equipment is being used in classes and returned with minimal repair and maintenance being conducted. This is not a sustainable model for continued success and very expensive if equipment needs replacement. In Addition, The program is short of qualified instructors for specific NWCG and State Fire Training classes. An effort should be made to develop a pool of adjunct instructors to meet the program's needs.

Planning Agenda

Hire 1-20 hour per week employee to maintain cache inventory and service and maintain fire equipment used for classes.

II. Professional Development

Description/Evaluation:

1. If available, reference Flex Contracts for full-time faculty teaching in the program for each of the last two years. [Copies may be available in the Office of Instruction].
   N/A
2. Describe the professional development and professional activities of the program faculty/instructional assistants in addition to flex obligation relevant to program improvement that has occurred during the period under review. (workshops, conferences, staff development, sabbatical leaves, work experience, etc.)
   Evaluate future instructor needs for the program and provide training and instructor development to prospective adjunct instructors.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning and Human Resources Planning Forms as appropriate for any recommendations requiring institutional action.

No Recommendations

III. Student Outcomes

Description/Evaluation:

Description/ Evaluation:

Describe any results from assessment of learning outcomes that affect human resource planning

There are no results from assessment of learning outcomes that affect Human Resource Planning.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning and Human Resources Planning Forms as appropriate for any recommendations requiring institutional action.

There are no results from assessment of learning outcomes that affect Human Resource Planning.

IV. Prioritized Recommendation

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Two that do not require institutional action (i.e. curriculum development) in order of program priority.

There are no recommendations.

Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section Two that should be included in Lassen College's planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR hand book to determine where recommendations are best placed.

Section Three: Facilities Planning

I. Facilities

Description/Evaluation:

1. Describe and evaluate the Lassen Community College facilities available to the program.

With the addition of the new office and classroom, The Fire Technology program has adequate storage, classroom and office facilities for our current program. A dedicated training site for FF skills and permanent training props should be located and developed.

The old playground area behind the fire equipment cache and use of specific areas in the Co-gen plant are examples of areas that can be utilized for those needs.

The Roof of the equipment cache building is leaking extensively and will need to be replaced in the very near future.

2. Describe and evaluate additional facilities utilized off-campus by the program (attach any relevant rental agreements)

The FS Department would like to develop off campus classroom sites with BLM, City of Susanville Fire Dept. and Susan River FD. LCC Fire staff will evaluate the feasibility.

3. Describe any facilities needs identified by assessments of student learning outcomes

None noted

4. Justify any proposed modifications or additions to existing facilities that would better serve the program planned for the next five years.

The program is need of certain training props that would allow us to become a State Certified Accredited Regional Training Program(ARTP). Becoming an ARTP would allow the program to become a firefighter skills testing facility which has been identified as a need for the north state. These needs will be evaluated and developed over the next few years

Installation of previously purchased turn out washing equipment will need to be installed. This includes a washing machine, water heater and an industrial cabinet dryer.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Facilities Planning, and Technology Planning Forms as appropriate for any recommendations requiring institutional action.

1. **Locate, renovate, or acquire additional off site instructional locations and areas on campus to build permanent training props that are in alignment with State Fire Training requirements.**
2. **Replace or repair the roof of the fire equipment cache building**

II. Prioritized Recommendations

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Three that do not require institutional action (i.e. curriculum development) in order of program priority.

None noted

Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section Three that should be included in Lassen College's planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

Section Four: Technology Planning

I. Technology

Description/Evaluation:

1. Describe and evaluate technology and technology support provided for instruction and instructional support.

Classrooms are equipped with a smart board, laptop docking station, document camera, DVD player in some locations, and sound amplifier. Full-time faculty has new laptop for course development and delivery.
With the new office, Fire Technology will need a desk top computer for the Director and one desk top Computer for the adjunct instructors, and Future FF1 testing. The new office will also need a large commercial color printer. Our current large printer is black and white only.

2. Describe any technology and technology support needs identified by assessment of student learning outcomes.

No needs Identified

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Facilities Planning, Technology Planning and Human Resource Planning Forms as appropriate for any recommendations requiring institutional action.

Purchase:2- Desk top computers for Directors office and adjunct instructors

1- Large capacity color printer

II. Prioritized Recommendations

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Four that do not require institutional action (i.e. curriculum development) in order of program priority.

None noted

Prioritized Recommendation for Inclusion in the Planning Process

List all recommendations made in Section Four that should be included in Lassen College's planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed

Section 5. Prioritized Recommendations

A. Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section One that do not require institutional action (i.e. curriculum development) in order of program priority.

- Program Student Learning Outcomes to be reviewed at the next advisory board meeting.
- Program changes, to include additional course offerings should be considered to effectively meet the changing technological needs in the fire service
- Evaluate mode of delivery for all courses in the Fire program and consider other modes of delivery to attract students from other regions.
- Program Faculty should work with high schools and allied agencies, to advertise and offer courses to meet their needs.
- Work with local prisons to offers courses to staff on prison grounds.
- Work with LCC administration to develop and administer anonymous course evaluations so the data can be analyzed for future program reviews.
- Maintain a CTE advisory committee roster with current professionals in the field.
- Schedule and conduct annual CTE advisory committee meeting as required.
- Develop and update course outlines to allow for different modes of delivery, including online and hybrid.
- Through consultation with advisory committee investigate and, if appropriate, develop additional certificate programs.

- Expand face to face course offerings, recruiting Adjunct instructors to be able to expand course offerings.
- Update two year academic plan to meet the needs of students, and different delivery options.

B. Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section One that should be included in Lassen College's planning and budgeting process, specifically in the Educational Master Plan, Student Services Master Plan, or Institutional Effectiveness Master Plan. Separate recommendations into the appropriate plan(s). Items to be included in the Human Resource Master Plan, Institutional Technology Master Plan, or Facilities Master Plan should be addressed in Sections Two, Three or Four in lieu of or in addition to inclusion in the Academic Master Plan. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

C. Prioritized Recommendations for Inclusion in Human Resource Master Plan

Fire Technology 2021

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
4	Hire Equipment Cache Manager	March 2021	$25000/yr	Accurate inventory control
5	Develop and Implement instructor development plan	ongoing	Travel for classes cost unknown	Increase adjunct instructor pool

D. Prioritized Recommendations for Inclusion in Education Master Plan

Fire Technology

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
1	Increase directed advertisement and promotion of the FT program.	Immediately and on-going	Minimal	Increased enrollment
2	Develop MOU with Lassen HS to provide a concurrent enrollment for HS students	Spring/Summer 21	unknown	Increased enrollment

E. Prioritized Recommendations for Inclusion in Facilities Master Plan

Fire Technology

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
1	Locate, renovate, or acquire on campus a dedicated training site for FF skills and permanent training props should be located and developed.	2 years	Unknown: Land improvement and construction of training Props	Complete requirements for becoming a State Fire Training, Accredited Regional Training Program
2	Develop budget line item for fire equipment Maintenance	Summer 2020	$10000	provide reliable and safe equipment for use in fire classes
3	Identify off-site classroom locations for community outreach and training	2 years	Minimal	Satellite classrooms for possible program expansion
4	Repair roof of fire equipment cache building	Summer 2021	$20000	Stop leaking and protect equipment. Minimize damage to building.
5	Install purchased turnout cleaning equipment Washer,dryer and water heater	Spring 2021	$2000	Allow for cleaning of LCC fire clothing without outsourcing

F. Prioritized Recommendations Inclusion in Institutional Technology Master Plan

Fire Technology 2021

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
4	Purchase 2 desk top computers	By summer 2021	$5000	Obtain Computers

G. Prioritized Recommendation for Inclusion in Student Services Master Plan

Fire Technology

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
3	Improve/Add Articulation agreements of transfer classes	2021	unknown	Provide avenue for students to transfer to 4 year college

H. Prioritized Recommendations for Inclusion in Institutional Effectiveness Master Plan

Fire Technology

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
1	Develop system for tracking job Placement and employment retention of students.	2022	unknown	Track program success for employment
2	Remove FS60A from educational statistics to accurately report program success	2022	unknown	Accurate IPR reporting

FIRE TECHNOLOGY

Associate in Science Degree Fire Technology

Required Core Courses: 18 units

Total Core Units: 30 units

Total Units: 60 units

Course Number	Course Title	Fall	Spring
FS 3	Fundamentals of Fire Prevention		3(even)
FS 4	Fire Protection Equipment and Systems	3(odd)	
FS 5	Fire Organization and Management	3(odd)	
FS 6	Building Construction for Fire Protection	3(even)	
FS 13	Fire Behavior and Combustion	3(even)	
FS 14	Principles of Fire Safety and Survival		3 (odd)

Required Electives: Select 12 units from the following

Course Number	Course Title	Fall	Spring	Summer
BUS 25	Small Business Management		3	
BUS 27	Business Communications	2	3	
EMT 21	Emergency Medical Responder	2	2	
EMT 60	Emergency Medical Technician	6.5		
FS 8	Wildland Fire Suppression		2	
FS 20	First Aid/CPR for Public Safety Employees		0.5	
FS 23	Vehicle Operations	Scheduled	as	needed
FS 26	Basic Air Operations (S-270)	Scheduled	as	needed
FS 49	Fire Technology Work Experience	1-8	1-8	
FS 51	Introduction to Fire Technology Careers	1		
FS 52	Incident Command System (I-200/300)	2		
FS 53	Introduction to Incident Command System		0.5	
FS 54	National Incident Command System	0.5	0.5	
FS 56	Helicopter Crewmember (S-271)	Scheduled	as	needed
FS 57	Auto Extraction		0.5	
FS 58	Introduction to Wildland Fire Behavior	0.5	0.5	
FS 59	Confined Space Awareness	0.5	0.5	
FS 60	Wildland Firefighter (CDF Basic 67)		3	3
FS 60A	Basic Fire Crew Firefighter	3	3	3
FS 61	Basic Firefighter Training (Basic 32)		2	
FS 64	Fire Instructor 1-Instructor Methodology		2.5	
FS 65A	Driver Operator 1A		1.5	
FS 65B	Driver Operator 1B		1.5	
FS 70	Heavy Equipment Boss (S-236)		1 (odd)	
FS 70A	Single Resource Boss Academy		2.5 (odd)	
FS 70B	Engine Boss (Single Resources)	Scheduled	as	needed

FS 72	HazMat First Responder Operations	1		
FS 72A	HazMat First Responder – Refresher	Scheduled	as	needed
FS 73A	Incident Business Management (S-260)	1(even)		
FS 73B	Applied Business Management (S-261)	1(even)		
FS 74	Fire in the Interface (S-215)	1.5(even)		
FS 75	Fire Behavior (S-290)		2 (even)	

FS 76	Firefighter Type 1 (Squad Boss S-131)	0.5		
FS 77	Human Factors on the Fireline (L-180)		0.5	
FS 78	Followership to Leadership (L-280)		.5	
FS 79A	Ground Support Unit Leaders (S-355)	Scheduled	as	needed
FS 80	Firefighter Survival		0.5	
FS 81	Wildland Firefighter Safety and Survival	0.5	0.5	
FS 84	Lessons Learned (Fatality Fire Case Studies)		1	
FS 85	Understanding Maps, Compass & GPS		1	
FS 86	Emergency Vehicle Operation	Scheduled	as	needed
FS 87	Expanded Dispatch Recorder (D-110)		1	
FS 89	Wildland Fire Chainsaws		1.5	
FS 90	Portable Pumps and Water Use (S-211)		1	
FS 98.18	Annual Fireline Safety Refresher Training		0.5	
FS 98.20	Annual Hired Equipment Refresher Training		0.5	
FS 98.21	Volunteer Firefighter Academy		2.5	

Electives: 12 units numbered 1-99

General Education Requirements: 18 units

See a counselor to prepare your educational plan with the latest scheduling information.

FIRE TECHNOLOGY

Certificate of Achievement Fire Technology

Required Core Courses: 18 units **Total Core Units:** 30 units

Course Number	Course Title	Fall	Spring
FS 3	Fundamentals of Fire Prevention		3(even)
FS 4	Fire Protection Equipment and Systems	3(odd)	
FS 5	Fire Organization and Management	3(odd)	
FS 6	Building Construction for Fire Protection	3(even)	
FS 13	Fire Behavior and Combustion		3(even)
FS 14	Principles of Fire Safety and Survival		3(odd)

Required Electives: Select 12 units from the following:

Course Number	Course Title	Fall	Spring	Summer
BUS 25	Small Business Management		3	
BUS 27	Business Communications	3	3	
EMT 21	Emergency Medical Responder	2	2	
EMT 60	Emergency Medical Technician	6.5		
FS 8	Wildland Fire Suppression		2	
FS 20	First Aid/CPR for Public Safety Employees		0.5	
FS 23	Vehicle Operations	Scheduled	as	needed
FS 26	Basic Air Operations (S-270)	Scheduled	as	needed
FS 49	Fire Technology Work Experience	1-8	1-8	
FS 51	Introduction to Fire Technology Careers	1		
FS 52	Incident Command System (I-200/300)	2		
FS 53	Introduction to Incident Command System		0.5	
FS 54	National Incident Command System	0.5	0.5	
FS 56	Helicopter Crewmember (S-271)	Scheduled	as	needed
FS 57	Auto Extraction		0.5	
FS 58	Introduction to Wildland Fire Behavior	0.5	0.5	
FS 59	Confined Space Awareness	0.5	0.5	
FS 60	Wildland Firefighter (CDF Basic 67)			3
FS 60A	Basic Fire Crew Firefighter	3	3	3
FS 61	Basic Firefighter Training (Basic 32)		2	
FS 64	Fire Instructor 1-Instructor Methodology		2.5	
FS 65A	Driver Operator 1A		1.5	
FS 65B	Driver Operator 1B		1.5	
FS 70	Heavy Equipment Boss (S-236)		1 (odd)	
FS 70A	Single Resource Boss Academy		2.5 (odd)	
FS 70B	Engine Boss (Single Resource)	Scheduled	as	needed
FS 72	HazMat First Responder Operations	1		
FS 72A	HazMat First Responder – Refresher	Scheduled	as	needed
FS 73A	Incident Business Management (S-260)	1(even)		
FS 73B	Applied Business Management (S-261)	1(even)		
FS 74	Fire in the Interface (S-215)	1.5(even)		
FS 75	Fire Behavior (S-290)		2 (even)	
FS 76	Firefighter Type 1 (Squad Boss S-131)	0.5		

FS 77	Human Factors on the Fireline (L-180)		0.5	
FS 78	Followership to Leadership (L-280)			0.5
FS 79A	Ground Support Unit Leaders (S-355)		2	

FS 80	Firefighter Survival		0.5	
FS 81	Wildland Firefighter Safety and Survival	0.5	0.5	
FS 84	Lessons Learned (Fatality Fire Case Studies)		1	
FS 85	Understanding Maps, Compass & GPS		1 (odd)	
FS 86	Emergency Vehicle Operation	0.5		
FS 87	Expanded Dispatch Recorder (D-110)		1 (even)	
FS 89	Wildland Fire Chainsaws		1.5	
FS 90	Portable Pumps and Water Use (S-211)		1	
FS 98.18	Annual Fireline Safety Refresher Training		0.5	
FS 98.20	Annual Hired-Equipment Refresher Training		0.5	
FS 98.21	Volunteer Firefighter Academy		2.5	

FIRE TECHNOLOGY

Certificate of Accomplishment Basic Fire Fighter

Required Core Courses: 9–11 units **Total Core Units:** 9-11 units

Course Number	Course Title	Fall	Spring
FS 8	Wildland Fire Suppression		2
FS 20	First Aid/CPR for Public Employees		0.5
OR			
EMT 21	Emergency Medical Responder	2.5	2.5
FS 51	Introduction to Fire Technology Careers	1	
FS 61	Basic Firefighter Training (Basic 32)		2
FS 72	HazMat First Responder Operations	1	
FS 89	Wildland Fire Chainsaws (S-212)		1.5
FS 90	Portable Pumps and Water Use (S-211)		1

Appendix B:

Fire Technology Advisory Board 2020-2022

Kim Keith	Alliance for Workforce Development
Jeremy McMahon	Bureau of Land Management
Joe Walton	CAL FIRE
Nick Garcia	CAL FIRE
Tim Williams	CAL FIRE-SVT
Dana Higgins	CAL FIRE-SVT
Chris Hallmark	CCC Fire House
Mike Wilson-Young	CCC Fire House
Joel Ehrlich	Janesville Fire Protection District
Ernie Coe	Janesville Fire Protection District
Leon Myers	Lassen Community College
Mike Rivas	Lassen Community College
Christi Myers	Norcal EMS
Robert Brown	Susanville City Fire Department
James Moore	Susanville Fire Department
VACANT	Susanville Indian Rancheria
Allen Schultze	USFS, Lassen National Forest
Robert Rice	USFS, Lassen National Forest
Steve Hitchcock	Susan River Fire Department
Morgan Nugent	Lassen High School
Dr. Trevor Albertson	Lassen Community College
Roxanna Haynes	Lassen Community College
Chad Lewis	Lassen Community College
Dan Weaver	Lassen Community College
Anna Pasqua	Lassen Community College
Adam Runyan	Lassen Community College

Lassen Community College
Fire Science/Technology Advisory Committee
Meeting Minutes
November 13, 2019 4:00pm

Present:
Robert Rice, Lassen National Forest Training Officer
Dan Weaver, City of Susanville Fire Department, LCC Adjunct
Silas Rojas, Lassen County Emergency Services Chief, EMS
Kim Keith, Alliance for Workforce Development
Dana Higgins, CalFire, CCC FS-60A program, representing Tim Williams
Anna Pasqua, LCC Fire Technology
Fran Oberg, LCC Academic Services
Karissa Morehouse, LCC Dean of Instructional Services

Call to Order: 4:00pm

Introductions/Program Goals:
All members present introduced themselves. Anna thanked everyone for their support and acceptance by the community. Dan extended his appreciation to Anna, saying she's the glue that holds the program together. Karissa stated that we're restarting ourselves and with support of adjunct & contract instructors, and the advisory committee, we will continue to move forward to serve the needs of students and the community.
What is an advisory committee? It is an informational body to provide expertise and offer recommendations for curriculum revisions, program relevance and improvement. It's a connection and preparation for employment for students. Anna will forward the procedures manual to Silas and anyone else interested.

Approve Minutes for Last Meeting:
The last advisory meeting was in 2017. Not enough members present for a quorum. Approval of minutes postponed.

Updates:
2020 Cal Fire Academy
Cal Fire Increased hours needed to complete the Cal Fire Basic. We are able to offer by combining current courses. Academy classes will be held in Spring 2020 for Pre-requisites, and core academy classes will be held in Fall 2020. Students who want the optional EMR training can take it during the summer 2020 session. Flyer provided.
LCC Current Courses:
Wildland Apparatus, Driver 1A & 1B will be offered at the CCC Fire House.
The email vote on Fire Control 4 went through. We have new burn props. Susanville Fire Department has used some of our props.
There was a request for the Company Officer series. The new proposal was approved and courses for State Fire Training Company Office are going through the curriculum approval process.
FS 61 – Basic 32

FS-61 Basic 32 will be offered 4/6/20-4/10/20. Zane Cuthill is the lead instructor. There is an informational flyer in your packet.
The plan is to offer an EMT-21 Emergency Medical Response class in summer 2020.

LCC Curriculum

- FS-60 Wildland Firefighter course outline has changed to add new required hours. Pre-requisites and co-requisites have been added so students get the full hours. In order to get the certification, students need to complete all hours. Ryan Danielson has seen this. He is in contact with Anna and is on board. This will work for now, but in the future, FS-60 will need a total re-work. Most of the pre-requisites are ready to schedule. We are waiting for instructors to get back from assignment.
- FS-61 is already on the books.
- FS-64 Instructor 1 for those who teach and to develop new instructors, will be offered in December. Need to get the advertisement and flyers out there. Get it in the paper, on the radio, on Susanville Stuff, Sierra Daily News, etc. For those that are teaching via Contract Services, please keep your agency in the loop.
- Vehicle Extrication class has been moved to December.
- More Wildland classes will be offered in spring.

At this point, enough members joined meeting so there was a quorum. Action items were addressed.

Minutes:

Minutes from the March 3, 2017 meeting were reviewed and discussed.
FS-94 Strike Team Leader (S330) needs regional approval to teach the class. Plans are to offer the class in Chester in February. It is not open to everyone. Might not be beneficial to offer as LCC class. If it is in a service agreement, it doesn't have to be open to the public.
New starting in January, Alaska & Great Basin Wildland Fire learning portal. Every agency gets to nominate people to take classes. More information will be available next week. How would LCC integrate into that? In the future, we can work with it and see how it fits in.
Action: Motion by Dan Weaver to approve March 3, 2017 minutes. Second by Dana Higgins. All in favor, the motion carried.

Curriculum:

Action: Motion by Silas Rojas to approve all changes to curriculum as discussed, including FS-60 and Company Officer. Second by Dan Weaver. All in favor, the motion carried.

Open discussion to include USFS/BLM/CCC/SIR/CALFIRE/OES/NORCAL EMS/AWD and local fire departments:

Community Partner Training Needs

Program Guidance/Future Directions

Recruitment Opportunities

- Karissa stated that the hiring process for the Fire Technology Officer position will get under way in the next few weeks. We need to move forward and get the community together. If anyone is interested in the position, please apply. Please reach out to anyone else that may be interested. Karissa would like a member of the advisory committee to

sit on the hiring committee for the 2nd interview. A concern was raised that it may be a conflict of interest. Is there a job description for the position? It would be helpful to see it and make recommendations. Real reference checks need to be completed properly so we don't have the problems that we've had in the past. A suggestion was made to get nominations for individuals to sit on the hiring committee.

- What is the status on assistant instructors? Because of the college's current financial status, this is not on the table right now. People can be hired as professional experts through the LCC HR department. Anna can get the paperwork started.
- What is the enrollment status for the Fire Technology program? Is it viable? It would be worthwhile to get data. Preferably going back to when Dave Trussell was the director. Karissa will ask for data and get it out to the committee.
- Dan stated that Driver Operator 1A & 1B are offered at CCC Fire House and on-campus. Robert Brown teaches 1C. Possibly put these classes in the offering rotation for every other year. Does it need re-requisites? It needs a Class B license and the ability to qualify for California driver's license drug testing requirements. This would be a good opportunity to bring in outside people.
- When is the next advisory committee meeting? CalFire training starts in March, so end of January or beginning of February would be good times to meet. Evenings or after 4:00 seem to work best. The location does not have to be the college. We can go to you if you'd like to host.
- USFS is in the process of hiring new apprentices. Don't know the needs for the 200 series classes yet. They were offered last year. There will be 30 new people, so their needs will be reviewed. For apprentices, what makes a good candidate? Level 1 should have 2-4 years' experience in fire. Experience while incarcerated counts.
- Kim noted that Alliance for Workforce Development has a Prison-to-Employment program coming soon.
- OC crews can be organized if there's an interest. It is on a Forest by Forest basis. Might be a possibility for a late fire season. It was nationally opened in August 2019 for the 2020 season.
- Entry level jobs are on USA Jobs. In the past, AFWD worked with USFS at hiring fairs. Completion of Basic 32 will help out applicants tremendously.
- Basic 32 is a hands on class. Students learn to cut line and other skills. The class is realistic so students know what they're getting in to. Kim noted that one hardship for students is the cost of boots. It's a safety issue and students must have specific boots. While students will need specific boots for employment with an agency, some flexibility is allowed for those taking the class. If students have questions, please reach out to Zane to see if footwear is appropriate.

Adjournment:

The meeting was adjourned at 5:20pm.

Appendix C:

LAST NAME	FIRST NAME	AGENCY	PHONE	EMAIL	FS CLASSES TAUGHT	STATUS/ NOTES
Adams	James	Instructional Support	775-682-1489	Jamesadamsjr1990@gmail.com	FS98.21	Instructional Support
Brown	Robert	CITY OF SUSANVILLE FD	805-441-8308	browncrew5@yahoo.com	SFT Classes FS 80, FS 59,FS 72, FS50, FS57, FS 65 A,B,C	Instructor of Record
Butler	Adam	BLM	530-310-5202	butleradam72@yahoo.com; Abutler@blm.gov	FS4, FS5,FS14,FS13, NWCG FS89	Instructor of Record
Coe	Ernie	Instructional Support	530-310-0281	jvhazmat@gmail.com	FS98.21	Instructional Support
Cohen	Heath	Professional Expert	951-313-1200	heath.cohen@vvc.edu	FS64	Previous professional expert
Cox	Christopher	CAL FIRE ACADEMY		Christopher.Cox@fire.ca.gov	FS60	Applied
Cuthill	Zane (fredrick)	USFS	530-310-2868	fredrick.cuthill@usda.gov	FS 61-Basic 32 (postponed COVID -19)	Instructor of Record
Danielsen	Ryan	CAL FIRE ACADEMY	530-513-2969	Ryan.Danielsen@fire.ca.gov	FS 60	Instructor of Record
Duboise	Brent	Professional Expert	530-515-0814	brentdubois@gmail.com	FS97	Previous professional expert
Duffen	Scott	CAL FIRE-SVT	760-404-8775	Scott.duffen@fire.ca.gov	F 60A	Instructor agreement signed on 4/7/2020
Estrada	Fernando	USFS	559-920-2256	fernando.estrada@usda.gov	Previous lead on FS61, FS 70A, B, C (Spring 2019)	Instructor of record
Fehler	Dean	CAL FIRE-SVT	909-499-8672	Dean.Fehler@gmail.com;	FS 60A, FS 61	Instructor of record

				Dean.Fehler@fire.ca.gov		
Fork	Teresa	USFS	530-257-3338		FS87, FS 91, FS98.18	Instructor of record
Garcia	Nick	CAL FIRE ACADEMY		nick.garcia1@fire.ca.gov	FS 60	Applied
Higgins	Dana	CAL FIRE - SVT	530-310-1406	Dana.Higgins@fire.ca.gov	FS60A, FS61	Instructor of record
Hitchcock	Steven	SUSAN RIVER FDP	530-859-0736	Chiefhitch@gmail.com	FS98.20, EMS	Instructor of record
Jarett	Andrew	Instructional Support	530-260-0290	andrewjerrett27@gmail.com	FS98.21	Instructional Support
Mattos	Adam	CAL FIRE ACADEMY		adam.mattos@fire.ca.gov	FS 60	Volunteer application in
Medvin	Bradly	CCC FIRE DEPT	530-257-6661	Bradley.Medvin@cdcr.ca.gov	FS 72, FS 72A, FS 72B	Submitting application
Mena	Greg	CAL FIRE ACADEMY	808-358-9765	mena.greg@gmail.com	FS60	Instructor of record
Merrill	Ed	BLM			FS 78, FS74, FS89	Submitting application
Miller	Charlie	Professional Expert	530-713-9072	ufd6510@gmail.com	FS97	Previous professional expert
Noggles	Richard	USFS	530-310-3544	Richard.Noggles@usda.gov	NWCG FS 61	Submitting application
Rivas	Mike	Retired	530-257-5582	mrivas@lassencollege.edu	FS3, FS4,FS 5	Instructor of record
Robinson	Gary	CAL FIRE ACADEMY	530- 257-5575	Gary.Robinson@fire.ca.gov	FS51, FS 81	Instructor of record
Rogers	Ben	CAL FIRE ACADEMY		Ben.Rogers@fire.ca.gov	FS60	submit new volunteer paperwork
Rojas	Silas	CAL FIRE ACADEMY		lassen.oes@fire.ca.gov	FS 60	Need to finish new hire paperwork with HR
Romer	Mark	Professional Expert		chiefromer@yahoo.com	FS64	PAR turned in

Schultze	Allen	USFS	530-310-3471	allenschultze@fs.fed.us	FS 70A, B, C, FS74 (Spring 2019) FS 75, FS 98.18	Instructor of record
Sherfy	Christian	CAL FIRE ACADEMY	530-430-1201	fire1300@yahoo.com	FS 80	Applied
Sutton	Dylan	USFS			FS 20, FS76, FS89	Instructor of record
Thornton	Issac	CAL FIRE ACADEMY	530-257-8506	Issac.thornton@fire.ca.gov	FS60, FS81	Instructor of record
Wall	Chris	CAL FIRE ACADEMY	775-901-0850	Chris.wall@fire.ca.gov	FS60	Applied
Walton	Joe	CAL FIRE ACADEMY	530-310-2207	Joe.Walton@fire.ca.gov	FS60	Applied
Weaver	Dan	LASSEN COLLEGE		dweaver@lassencollege.edu	FS98.21, SFT	Instructor of record
West	Mike		Office: 530-257-5575	michael.west@usda.gov		Applied

Appendix D:

North Far North Labor Market Research LMI Summary

Summary

The Far North Center of Excellence for Labor Market Research prepared this report to provide regional labor market supply and demand data related to wildland firefighter occupations in the Far North region. This report focuses on two middle-skill occupations; Firefighters (33-2011), and First-Line Supervisors of Firefighting and Prevention Workers (33-1021).1 Reported job titles for Firefighters (33-2011) includes Wildland Firefighters.

Please note that at this time traditional LMI is not available for Wildland Firefighters. Wildland firefighters may be classified by some agencies as Forest and Conservation Technicians (19-4071). Please see Appendix A for labor market demand data for this middle-skill occupation.
This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from existing community college programs.
Key findings include:

• The Far North region held 1,891 jobs for fire prevention workers in 2019. Jobs for fire prevention workers are projected to increase by nearly 4% over the next five years. Jobs for forest and conservation technicians are projected to increase by nearly 1% over the next five years.

• Over the next five years, fire prevention workers are projected to have 164 annual openings in the Far North region. There are 153 projected openings for forest and conservation technicians over the next five years.

• Wage data shows that fire prevention workers and forest and conservation technicians tend to earn more than the subregion's living wage. Reported earnings for fire prevention workers range from a low of $15 per hour for entry-level work to a high of $48 per hour for experienced workers.

• Fifty-nine percent of existing fire prevention workers and 38% of existing forest and conservation technicians have education consistent with community college offerings (some college or associate degrees).

• Analysis of postsecondary awards related to fire occupations in the Far North region shows that, on average, 242 awards were issued each year between the 2017-2018 and 2019-2020 academic years.

1 The COE classifies middle-skill jobs as the following:
• All occupations that require an educational requirement of some college, associate degree or apprenticeship;
• All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
• All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.