PROGRAM NAME: ___FIRE SCIENCE_____   **AUTHORING TEAM CONTACT:** ___PAT MCAULIFF_____

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GUIDELINES

Time Frames:

- **Scope**:

    The time frame of program review is five years, including the year of the review.

    Data being reviewed for any item should go back the previous five years, unless not available.

- **Deadline Dates**:

    January 15th – Program Review Document due to Department Dean for review

    January 31st – Program Review Document due to Program Review Steering Committee

- **Years:**

    Years 1 & 3 – Implement Action Plan of (CIP) and collect data

    Years 2 & 4 – Analyze data and findings from previous year, Update Action Plan

    Year 5 – Write Program Review of past 5 years; Write Continuous Improvement Plan (CIP) and create new Action Plan

LENGTH OF RESPONSES: Information provided to each question may vary but should be generally kept in the range of 1-2 pages.

EVIDENCE GUIDELINES: In the following sections, you will be asked to provide evidence for assertions made.

a. **Sources**: This evidence may come from various sources including professional accreditation reviews, THECB, Texas Workforce Commission's CREWS, Collin's Institutional Research Office (IRO), National Student Clearinghouse, IPEDS, JobsEQ, and may be quantitative and/or qualitative. If you are unfamiliar with any of these information sources, contact the Institutional Research Office at: effectiveness@collin.edu. Use of additional reliable and valid data sources of which you are aware is encouraged.

b. **Examples of Evidence Statements**:

    1. Poor example: Core values are integrated into coursework. (Not verifiable)
    2. Good example: Core values are integrated into coursework through written reflections. (Verifiable, but general)
    3. Better example: Core values are integrating into coursework through written reflections asking the student to describe how s/he will demonstrate each of the core values in his or her professional life and demonstrated through service learning opportunities. (Replicable, Verifiable)

THE PROGRAM REVIEW PORTAL can be found at http://inside.collin.edu/institutionaleffect/Program_Review_Process.html. Any further questions regarding Program Review should be addressed to the Institutional Research Office (effectiveness@collin.edu, 972.599.3102).

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

EXECUTIVE SUMMARY:

Briefly summarize the topics that are addressed in this self-study, including areas of strengths and areas of concern. (Information to address this Executive Summary may come from later sections of this document; therefore, this summary may be written after these sections have been completed.) Using the questions in the template as headings in the Executive Summary can provide structure to the overview document.

Since 1986, the Fire Science program has existed to provide students with the necessary knowledge and skills for both entry level and career advancement positions within area fire departments. The program continues to evolve in an effort to meet the training needs of local departments through credit and non-credit courses. The curriculum, equipment, facilities, and faculty credentialing are regulated by the Texas Commission on Fire Protection. With a new state-of-the-art training facility and a wide variety of course offerings including state certifications, the program has maintained a solid reputation as a quality training provider.

Because of job requirements (pre and post-employment), many students in the Fire Science program enter into a continuous learning cycle within Collin College. For example, a high school graduate may start their learning in the Basic Firefighter certificate (Fire Academy) program, complete their AAS degree in Fire Science, and return to complete the Fire Officer certificate program in an effort to qualify for a promotion within their fire department. Additionally, many of these same students enroll in Continuing Education (CE) classes either as part of their fire department monthly in-service training program, or earning additional state certifications beneficial to their profession. With the introduction of Prior learning Assessment (PLA) at Collin, a variety of their learning experiences can be applied directly into the AAS Fire Science degree.

Graduates of the Fire Science program now have new pathways towards applying their AAS degree towards a BAAS degree at both University of North Texas-Dallas, and Waldorf University Online. Both of these baccalaureate programs approached Collin based the program's long-standing reputation for quality. This is accomplished through special admissions requirements for students entering the Basic Firefighter certificate program (Fire Academy). Through a rigorous selection process, approximately 35% of the applicants are accepted into the program. Adding an additional Fire Academy cohort each year would increase the number of enrollments

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

helping to meet the annual market demand of approximately 100 firefighters within Collin County for the next ten years. However, creating an additional class offering will require an increase in faculty and equipment to support the additional number of students.

With an average of 61 completers each year for the past five years, the Fire Science program has a proven track record of student retention and completion. The quality of the program is verified by a 97% course completion rate, 93% course success rate, and a 95% pass rate on all state certification exams. An active Fire Science Program Advisory Committee helps to align and support the efforts of the program to local needs and practices.

Overall, the Fire Science Program is strong, but does have some weakness requiring attention. Specifically, the age of some of the apparatus and equipment used in the program no longer represents what is used in the field. With the replacement of one aging vehicle, following the proposed replacement plan for all vehicles is paramount to the continued success of the program. Additionally, faculty and support staffing levels must be addressed to facilitate smooth program operation and expansion.

Section I. *Are We Doing the Right Things?*

1. WHAT DOES YOUR WORKFORCE PROGRAM DO?

This section is used to provide an overview description of the program, its relationship to the college and the community it serves. **Keep in mind the reviewer may not be familiar with your area**. Therefore, provide adequate explanation as needed to ensure understanding.

What is the program and its context?

- *Program's purpose (Include the program's purpose/mission statement if one exists.)*

  The Fire Science program serves to prepare and enhance the knowledge and performance levels of first responders serving as firefighters in local communities. The program provides pathways for students seeking entry level positions as well as veteran firefighters seeking professional development. This comprehensive program offers college credit courses leading to certificates and degrees with additional courses offered as non-credit continuing education (CE) meeting the demands of local fire departments.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Fire Science Department Mission Statement: The Fire Science Department is committed to student success in both entry level and career advancement educational pathways. Through excellent teaching in both cognitive and skill-based practices, students are prepared for real world challenges as first responders.

Mission Statement: *Collin County Community College District is a student and community-centered institution committed to developing skills, strengthening character, and challenging the intellect.*

- *Program learning outcomes or marketable skills*

The Fire Science program follows the guidelines set by the Texas Higher Education Coordination Board (THECB), and is regulated by the Texas Commission on Fire Protection (TCFP). Students enrolled in the program follow a coherent sequence of courses designed to prepare them for either an entry level position in the fire service, or career advancement. Fire Science students have the choice of completing the Basic Firefighter Certificate Focus Option (Fire Academy) or Fire Officer Certificate Focus Option, then completing academic and technical core requirements leading to an Associate of Applied Science (AAS) degree in Fire Science. Students may also earn an Occupational Skills Award after completing select FIRT courses within the Fire Officer Certificate. Entry level students (civilian) complete the Basic Firefighter certificate first, seek full-time employment, and return to Collin College to complete the AAS Fire Science degree. Veteran firefighters complete the Fire Officer certificate, then complete the AAS Fire Science degree. It is common for career firefighters to take non-credit CE courses interspersed with their degree course requirements.

Civilian Student	• **Basic Firefighter Certificate** (Fire Academy) • Academic Core • Technical Core	→	
Veteran Firefighter Student	• Occupational Skills Award • **Fire Officer Certificate** • Academic Core • Technical Core	→	**AAS Fire Science**

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

The **Basic Firefighter Certificate** focus options (Fire Academy) prepares civilian students for initial employment at area municipal fire departments. The program follows a regimented format and program specific rules focusing on discipline and teamwork necessary for effective response during an emergency. Learning is accomplished in many ways including active student participation in live-fire training scenarios requiring creativity and innovation for successful completion.

The **Fire Officer Certificate** focus option exists to provide professional firefighters with a mechanism to earn promotions within area fire departments to supervisory levels. The Fire Officer Program accomplishes this by offering a collection of courses leading to state certifications. The courses follow the curriculum guidelines established by the National Fire Protection Association and regulated by the Texas Commission on Fire Protection. The Fire Officer Program involves intense classroom and on-line instruction. Students take four state certification exams while earning credits for the Fire Officer Certificate and Associate of Applied Science Degree in Fire Science. Students can earn an **Occupational Skills Award** (Fire Officer Candidate) by successfully completing: FIRT 1442 -Fire Officer I, FIRT 2305 Fire Instructor I, FIRT 2309 Firefighting Strategies and Tactics.

The Fire Officer Program involves intense classroom and on-line instruction. The program prepares students to take four state certification exams while earning credits for the Fire Officer Certificate and Associate of Applied Science Degree in Fire Officer. Students have the option of taking the state certification courses as either credit or non-credit. Successful completion of select non-credit course can be applied to the AAS Fire Science degree requirements through the Prior Learning Assessment (PLA) process. Provisions in the PLA process include acceptance of state certifications, and credit by exam. The duration of the certificate program is two semesters.

- *Brief explanation of the industry/industries the program serves*

The Fire Science program serves area fire departments by providing entry level job training and career advancement courses. Paid firefighters in Texas are required to complete state regulated training prior to receiving a duty assignment as a firefighter or Emergency Medical Technician (EMT).

- *Career paths and/or degree paths it prepares graduates to enter*

The Fire Science program follows the guidelines set by the Texas Higher Education Coordination Board (THECB). Students enrolled in the program follow a sequence of courses designed to prepare them for an entry level position in the fire service. Fire Science students have the choice of completing the Basic Firefighter Certificate (Fire Academy) program and/or the Associate of

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Applied Science (AAS) degree in Fire Science. The majority of the students complete the certificate program first, seek full-time employment, and return to Collin College to complete the AAS Fire Science degree.

- *What regulatory standards must the program meet (THECB, Workforce, external accreditation)*

The Fire Science program is regulated by the Texas Commission on Fire Protection (TCFP), and the Texas Higher Education Coordinating Board (THECB). The TCFP regulates instructional delivery through course approvals, instructor certifications, and facility inspections. Personal Protective Equipment (PPE) used by students and instructors including firefighting gear and self-contained breathing apparatus (SCBA) is regulated through annual inspection, testing, and age of the equipment. Students enroll in THECB approved courses earning certificates and an AAS degree in Fire Science.

2. WHY DO WE DO THE THINGS WE DO: PROGRAM RELATIONSHIP TO THE COLLEGE MISSION & STRATEGIC PLAN

- **Provide program-specific evidence of actions that document how the program supports the College's mission statement:** "*Collin County Community College District is a student and community-centered institution committed to developing skills, strengthening character, and challenging the intellect.*"

Developing Skills

Throughout the Fire Science program, students learn a wide variety of technical skills and professional workplace standards. Within each Certificate Focus Option, students are introduced to the necessary cognitive and skill requirements for a particular job function within the fire service. Professional job qualifications are established at the national level and conveyed within state certification curriculum. Entry level (Fire Academy) students follow learning objectives at the knowledge and comprehension levels, while Fire Officer students follow objectives at the analysis, synthesis and evaluation levels. All AAS-Fire Science degree students develop communication skills by taking coursework outside of the department to develop verbal and written communication necessary for top level performance in the workplace.

Fire Science program advisory committee members provide essential input, assuring that the curriculum meets the needs of the fire service. Committee members frequently hire Collin Fire Science program graduates or in many cases send their new hires to the program to assure quality in the training received. It is common for a local fire department to send a new

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employee having completed state mandated training from another school or private training provide back through Collin's program.

Strengthening Character

Firefighters work as a team. Collin's Fire Academy program recognizes the importance of working effectively as a member of a team and strives to instill teamwork throughout the curriculum. Each Fire Academy class is divided into three groups or "shifts." Each shift is divided into two working groups or "companies." Each company has a leader (Captain), and students rotate the responsibility of being the shift Captain each week during the program. The Captain is responsible for "roll call" at the beginning and end of each class meeting, and is responsible for carrying out any specific instructions given in preparation for learning activities and end of class clean-up. Students learn how to be good leaders and good followers.

Challenging Intellect

Students in both Basic Firefighter and Fire Officer certificate programs are challenged throughout the curriculum. Skill-based scenarios require students to combine critical thinking with manipulative skills for effective outcomes. Specially designed facilities and props at the Public Safety Training Center enable instructors to create realistic scenarios while maintaining an appropriate level of safety during each training activity. Students quickly learn that a "thinking" approach to solving a physical problem is far more effective than brute force.

- **Provide program-specific evidence that documents how the program supports the College's strategic plan (either 2020 Vision or the 2020-2025 Strategic Plan)**:   https://www.collin.edu/aboutus/strategic_goals.html.

  Suggested/possible points to consider:
  - *What evidence is there to support assertions made regarding how the program relates to the mission, and strategic plan?*
  - *Think broadly-increasing completion, articulation agreements, pathways from high schools, etc.*
  - *Analyze the evidence you provide. What does it show about the program?*

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Pursuant to Collin's 2020-2025 Strategic Plan, the Fire Science program specifically addresses the following goals identified in the plan:

Create and implement comprehensive integrated pathways to support student transitions. (Licensures/AAS). Effective Fall 2020, the Fire Science program consolidated two AAS degrees – each having a certificate option – into one AAS Fire Science degree. Students can now choose a focus option transitioning them from various state certifications (licensures) to an AAS Fire Science degree.

Implement the third Baccalaureate degree by Fall 2022 and continue adding 2+2 programs with university partners. In 2019, the Fire Science program entered into an articulation agreement with the University of North Texas at Dallas (UNTD) creating a pathway for students to earn a Bachelor of Applied Arts and Science degree with a concentration in Emergency Services Administration (BAAS-ESA).

In 2020, The Fire Science program entered into an articulation agreement with Waldorf University Online for students to earn a Bachelor of Applied Science – Fire Science Administration.

3. WHY WE DO THE THINGS WE DO: PROGRAM RELATIONSHIP TO STUDENT DEMAND

 Make a case with evidence to show that students want to enroll in the program. Discuss whether or not there appears to be any disproportionate enrollment by gender, race, or ethnicity (compared to Collin College's overall student demographic distribution). If any differences exist discuss possible reasons why the gap exists, and plans to address these issues to close gaps in enrollment rates between groups of students.

Suggested/possible points to consider:
- *What is the enrollment pattern? Declining, flat, growing, not exhibiting a stable pattern, please explain. For required program courses where there is a pattern of low enrollment (fewer than 15 students), explain your plan to grow enrollment and/or revise the curriculum.*
- *What are the implications for the next 5 years if the enrollment pattern for the past 5 years continues?*
- *Describe any actions taken to identify and support students enrolled in program-required courses early in the degree plan. If no actions are taken at the present, please develop and describe a plan to do so.*

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Following the demolition of the Fire-Rescue Training facility in 2014 to accommodate the Cary A. Israel Health Sciences Building, the program application pool decreased. Prospective students were not sure of the program's future and sought training elsewhere. Since the completion of the Public Safety Training Center in 2018, candidate responses have increased to match the expected demand of the current market. The Fire Science Department hopes to expand by adding summer courses to keep up with the growing demand of firefighters in Collin County and surrounding areas. The addition of full-time faculty on a 260-day contract would support the addition of summer courses.

The Collin College Fire Academy offers both daytime and evening programs to best serve student demand. The Academy is a special admissions program requiring students to follow a program application process in addition to applying to Collin College. Historically, daytime course offerings prove to be more popular with students. They can complete the entire certificate program requirements in under 25 weeks by attending classes for 8 hours Monday through Friday. The evening course offerings are best suited for students who work while attending school. Students following the evening course schedule can complete the entire certificate program requirements in approximately 48 weeks. Each class is designed for 24 students. The chart below shows the demand by number of applicants per class. Each term, with the exception of August 2015, applicants have been turned away due to the ratio of applicants to available positions. At the conclusion of the program application process, there are more qualified candidates than available positions in each class. Due to equipment and staffing constraints, the program cannot simply increase the enrollment limits in each class.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Fire Academy Program Student Applications

Note: Each class is designed for 24 students

Date	Daytime Program	Number of Applicants	Evening Program	Number of Applicants
Aug 2015	Class # 63	28		
Aug 2015			Class # 64	22
Jan 2016	Class # 65	25		
Aug 2016	Class# 66	43		
Aug 2016			Class # 67	39
Jan 2017	Class # 68	41		
Aug 2017	Class # 69	33		
Aug 2017			Class # 70	29
Jan 2018	Class #71	41		
Aug 2018	Class #72	30		
Aug 2018			Class #73	25
Jan 2019	Class #74	55		

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Aug 2019	Class #75	60		
Aug 2019			*Class #76*	35
Jan 2020	Class #77	63		
Aug 2020	Class #78	74		
Aug 2020			*Class #79*	44
Jan 2021	Class #80	44		
Total		537		194

*Table 1. Fire Academy Applicants. Approximately 35% of Fire Academy applicants are accepted into
The Basic Firefighter Certificate program (Fire Academy) through a special admission program
application process mimicking the typical Fire Department application process including: Reading,
Writing, Math assessment tests, Physical Ability Test, Personal Interview, and
Criminal Background Check.*

UNDUPLICATED STUDENT ENROLLMENT BY PROGRAM PER TERM – FIRE ACADEMY			UNDUPLICATED STUDENT ENROLLMENT BY PROGRAM PER TERM – FIRE SCIENCE	
FALL 2015 – SPRING 2016	285		FALL 2015 – SPRING 2016	141**
FALL 2016 – SPRING 2017	240		FALL 2016 – SPRING 2017	106**
FALL 2017 – SPRING 2018	88*		FALL 2017 – SPRING 2018	52
FALL 2018 – SPRING 2019	186		FALL 2018 – SPRING 2019	83
FALL 2019 – SPRING 2020	60*		FALL 2019 – SPRING 2020	74

*THESE NUMBERS ARE INCONSISTENT DUE TO COURSE START/STOP DATES FALLING OUTSIDE OF THE NORMAL SEMESTER SCHEDULE DATA SEARCH PARAMETERS.

**THE SIGNIFICANT INCREASE IN THESE NUMBERS IS A RESULT OF LOCAL FIRE DEPARTMENTS ADDING NEW FIRE STATIONS RESULTING IN AN INCREASED NEED FOR FIRE OFFICERS TO STAFF THESE NEW STATIONS.

Table 2. Unduplicated Enrollments. Variances in the annual numbers reported are a result of several factors including the addition of new fire stations in the area, timing of data pulls, and changes within the curriculum.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Fire Science students display a gap in gender. The fire service is, historically, a male dominated profession. Though women have proved to be successful firefighters, many still believe that firefighting is unattainable due to the physical ability standards and nature of the work. In an effort to minimize gender inequity Collin College Fire Academy has partnered with North Texas Women Firefighters, a non-profit organization that recruits, educates, and equips women to be successful. This collaboration hosted an event at the Public Safety Training Center where female firefighters (including Collin graduates) conducted a workshop to support and educate women interested in the industry. The Fire Science Department is encouraging and supportive of all genders, races, and ethnicities.

Fig. 1. Female Students. Efforts to attract female students in a male dominated program have increased from 5% to 9% over the past five years.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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COLLIN COLLEGE

Sex Distribution of Enrolled Fire Academy Majors, Compared to Collin College's Overall Student Sex Distribution
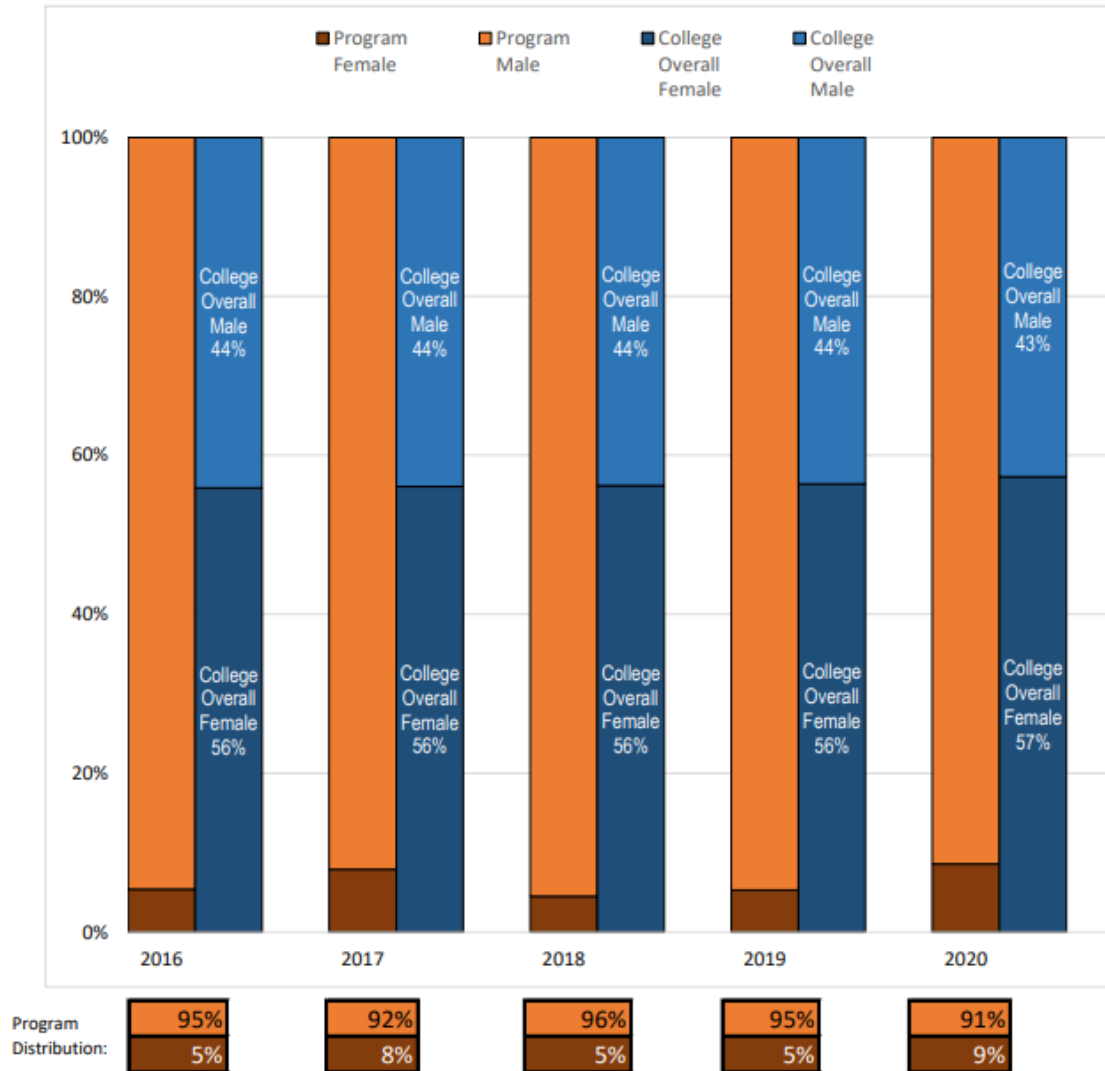
	2016	2017	2018	2019	2020
Program Distribution:	95%	92%	96%	95%	91%
	5%	8%	5%	5%	9%

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Ethnicity Distribution of Enrolled Fire Academy Majors, Compared to Collin College's Overall Student Ethnicity Distribution
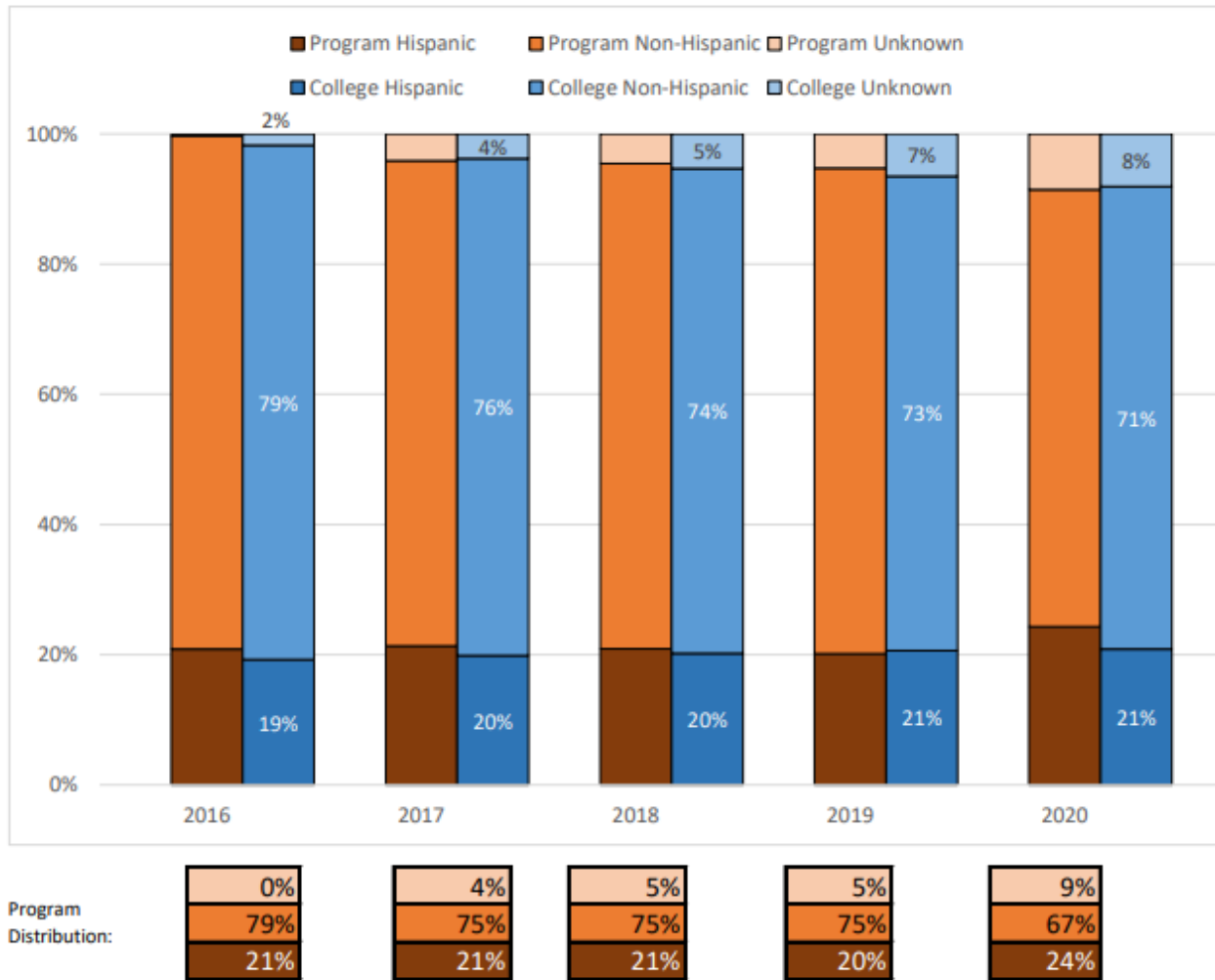
Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Racial Distribution of Enrolled Fire Academy Majors, Compared to Collin College's Overall Student Racial Distribution

Legend:
- Program Asian
- Program Black - African American
- Program White - Caucasian
- Program Other*
- College Asian
- College Black - African American
- College White - Caucasian
- College Other*

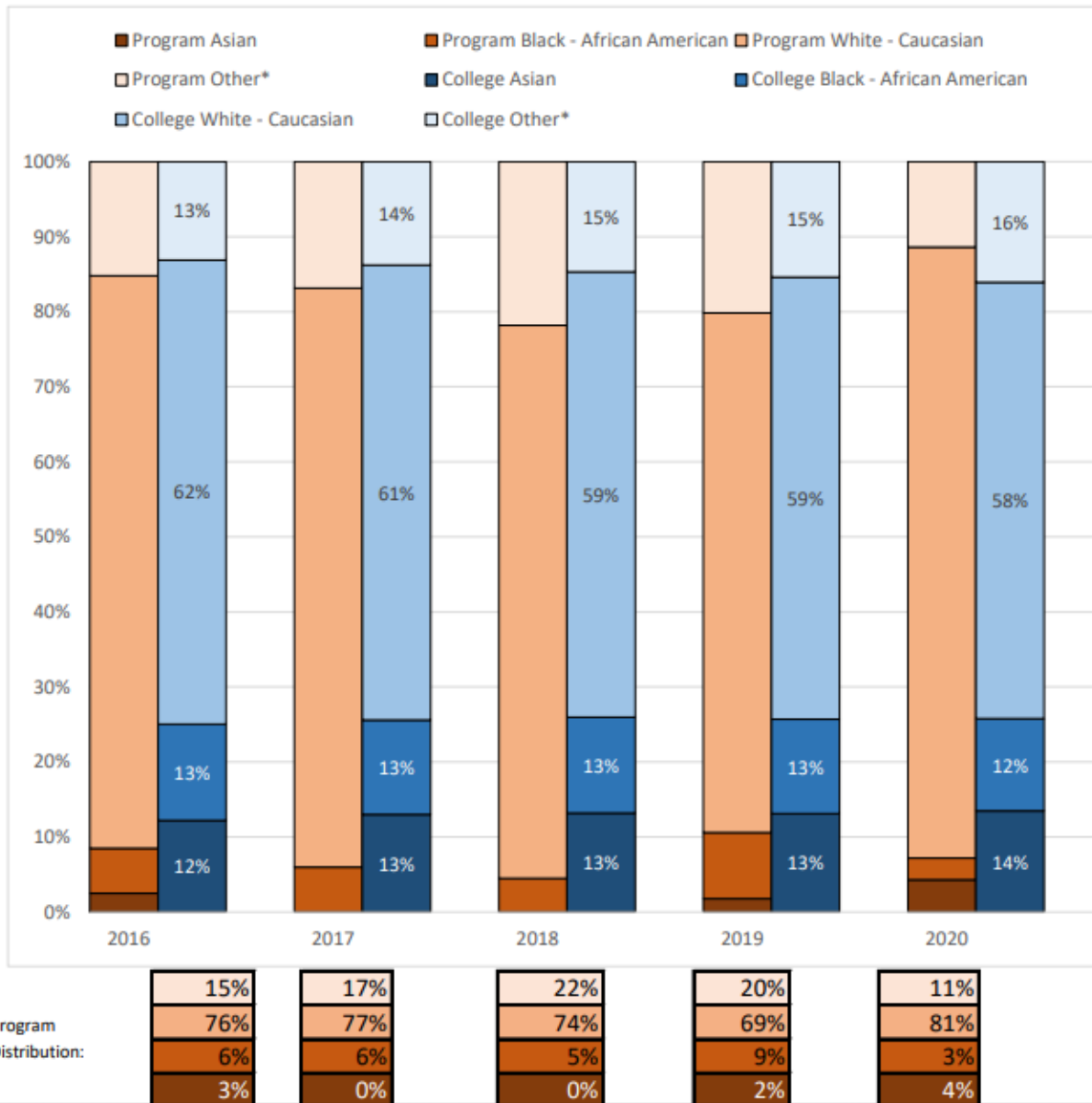| Program Distribution:	2016	2017	2018	2019	2020
	15%	17%	22%	20%	11%
	76%	77%	74%	69%	81%
	6%	6%	5%	9%	3%
	3%	0%	0%	2%	4%

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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4. WHY WE DO THE THINGS WE DO: PROGRAM RELATIONSHIP TO MARKET DEMAND

Make a case with evidence to show that employers need and hire the program's graduates.

Firefighters are responsible for controlling and extinguishing fires, responding to hazardous materials incidents, motor vehicle accidents, and all other emergencies where life, property and/or the environment are at risk. While on scene of fires and other emergency incidents the work can be very dangerous. When firefighters are not responding to calls, their time is spent at the fire station where they eat, sleep, and engage in other activities including educational classes, simple and complex practical training, and vehicle and equipment maintenance.

The Collin College Fire Science program has a reputation for holding their students to the highest standards for on-the-job personal safety and adjunct firehouse duties. Celina, Texas Fire Chief Mark Metdker, notes that his experience with Collin Fire Academy graduates has been only positive as "they have proven to be excellent firefighters and employees."

Collin College Fire Science Degree and Students and Fire Academy Cadets place themselves in a proactive position for pursuing a firefighter career. While some fire departments do not require any certifications prior to employment eligibility, numerous Metroplex and Collin County fire departments are currently requiring applicants to have 45-60 college hours and or be Texas Commission on Fire Protection (TCFP) certified as Firefighter I and II with EMS certification before applying to their departments or they provide preferential hiring to those who have such certifications. Collin Fire Science Program provides a well-respected, professional and wholesome life, and career preparatory experience for its students (see **Appendix A** for area a sampling of hiring requirements).

Some resources to utilize for information could be: Texas Workforce Commission, JobsEQ, Burning Glass, O-Net, Texas LMI

Suggested/possible points to consider:
- *How many program-related jobs are available in the DFW Metroplex for program graduates? If the majority of related jobs in the DFW Metroplex require a baccalaureate degree, provide evidence that you have a current signed articulation agreement with one or more transfer institutions or that you plan to develop one.*

The Texas Commission on Fire Protection (TCFP) website shows approximately 115 Fire Departments in North Eastern Texas of varying size and differing between paid and volunteer, private and public. Phone interviews and an e-mail survey were performed of paid and paid/volunteer departments of varying size. Thirty Fire Departments in Collin

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County and the DFW Metroplex were asked, "What is your department's anticipated firefighter staffing needs over the next 5 to 10 years."

Survey results demonstrate an increasing need for Collin College Fire Science/Academy program graduates as survey respondents projected over 3030 hiring opportunities for firefighters in the Metroplex and Collin County over the next 5-10 years. Fire departments within Collin County report 440 firefighters will be needed in the next 5 years (2021-2026).
This hiring rate outpaces the national projected Firefighter hiring percentage of 6% and all occupations growth rate of 4% (see **Appendix B** for area fire department hiring projections). The optimal class size for a Fire Academy cohort is 24. The Fire Science program currently offers three classes each year. The survey results indicate the need for additional Fire Academy classes, but this cannot be accomplished without an increase in equipment and staffing.

Area	Response Rate	Jobs Per Year (2020-2030)	Total Jobs (by 2030)
Metroplex	80 %	209	2083
Collin County	93.75%	103.8	1038
All Cities	86.1%	312.8	3121

Table 3. Job Projections. The above chart summarizes the responses of surveyed cities within the region. Fire Chiefs were asked to provide hiring projections for the next 10 years.

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- *What proportion of the program's graduates found related employment within six months of graduation?*

THECB Automated Student and Adult Learner Follow-Up System Exit Cohort Reports					
2016-2017	**Cohort Group Subtotal**	**All Working**	**Not Found**	**Median Quarterly Earnings**	**Employment Rate**
430201 Fire Protection and Safety Technology (Fire Officer)	13	13	0	$20,710	100%
430203 Fire Science/Firefighting (Basic Firefighter)	41	38	1	$14,407	93%
2017-2018					
430201 Fire Protection and Safety Technology (Fire Officer)	8	8	0	$23,2094	100%
430203 Fire Science/Firefighting (Basic Firefighter)	46	42	3	$8,437	91%
Combined	**108**	**101**	**4**		**93.51**

Table 4. Graduate Employment. 93.51% of Graduates from Collin College Basic Firefighter Certificate program find employment within six months of graduation. Completers who continued their education (ie: Paramedic program) prior to employment are not reflected in this data.

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- *What changes are anticipated in market demand in the next 5 years? Do program completers meet, exceed, or fall short of local employment demand? How will the program address under- or over-supply?*

The latest published report from the National Fire Protection Association (2020) states: "[t]here were an estimated 1,115,000 career and volunteer firefighters in the United States in 2018" with approximately 26% of these jobs being currently filled by firefighters age 50-60 and over.

According to the US Bureau of Labor Statistics, the 10-year period between 2019 and 2029 the national employment for Firefighter and EMT/Paramedic's is projected to grow at an annual pace of 6%. This outpaces the 4% average for all other occupations nationally. Projected growth is influenced from 3 primary factors 1) Organic growth of communities 2) the need for additional staffing to provide required services and 3) replacement of staffing due to attrition (retirements or loss of employment). By 2030 the fire service will have lost and or be nearing the replacement of 49% of those firefighters who were employed in 2018. The Fire Science program can address the under-supply of completers by increasing the annual Fire Academy cohorts from 3 to 4. However, the additional cohort will require an increase in faculty, staff, and equipment.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Section II. Are We Doing Things Right?

5. HOW EFFECTIVE IS OUR CURRICULUM, AND HOW DO WE KNOW?

A. Make a case with evidence that there are no curricular barriers to completion. Review data related to course retention rates, course success rates, and the frequency with which courses are scheduled to identify barriers to program completion.

Suggested/possible points to consider:
- *Number of students who completed the program awards in each of the last 4 years? If the number of graduates does not average 5 or more per year, describe your plan to increase completions and address this issue in the Continuous Improvement Plan (CIP).*
- *At what point(s) are substantive percentages of students dropping out of the program? Use data in the "Program-Based Course Performance" tool to examine enrollment flow through the program curriculum. Does the data suggest any curricular barriers to completion? Address problems in the CIP.*
- *Review course retention rates, course success rates, and the frequency with which courses are scheduled to identify barriers to program completion. Address problems in a CIP.*

B. Show evidence that the institutional standards listed below have been met. For any standard not met, describe the plan for bringing the program into compliance.

1. **Completers Standard: Average 25 completers over the last five years or an average of at least five completers per year.**
   Number of completers: ___ 305 + 69 = **374** ____ in last five years.
   If below the state standard, attach a plan for raising the number of completers by addressing barriers to completion and/or by increasing the number of students enrolled in the program. Definition of completer—Student has met the requirements for a degree or certificate (Level I or II).

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

2.

Fire Academy			
Year	Number of Completers		
	Certificate	AAS	Total
2015	52	6	58
2016	60	5	65
2017	50	1	51
2018	70	1	71
2019	51	9	65
Total	**283**	**22**	**305**
5 yr. Average	**57**	**4**	**61**

Fire Science				
Year	Number of Completers			
	OSA	Certificate	AAS	Total
2015	1	0	2	3
2016	0	6	6	12
2017	12	4	2	16
2018	5	3	2	10
2019	8	2	5	27
Total	**26**	**15**	**17**	**69**
5 yr. Average	**5**	**3**	**3**	**14**

Table 5. Program Completers. The Fire Science Program combined total of completers far exceeds the minimum state requirement of 5 completers each year.

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3. **Licensure Standard: 93% of test takers pass licensure exams.**
    If applicable, include the licensure pass rate: ___ **95%** ___
    For any pass rate below 93%, describe a plan for raising the pass rate.

Licensure/Certification Exam Pass Rates	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	Five Year Total
Students Attempting Exam	208	207	248	241	347	1,251
Students Passing Exam	199	200	237	222	333	1,191
Pass Rate	96%	97%	96%	92%	96%	**95%**

...\THECB\Licensure Reporting\Licensure History\FY2015-FY2019 Licensure Pass Rate History.xlsx

Table 6. State Certification Exam Pass Rates. The Fire Science program prepares both credit and non-credit students for a variety of state certifications. State certifications are required for initial employment and career advancement.

4. **Retention Standard: 78% of students enrolled in program courses on the census date should still be enrolled on the last class day (grades of A through F).**
    Include the retention rate: ____ **98%** _____ *(See Fig. 11. Grade Distribution)*
    If the retention rate is below 78%, describe a plan for raising the course completion rate.

C. **Make a case with evidence that the program curriculum is current.**

Suggested/possible points to consider:
*   *How does the program curriculum compare to curricula at other schools? Review programs at two or more comparable colleges. Discuss what was learned and what new ideas for improvement were gained.*
*   *How does the program curriculum align with any professional association standards or guidelines that may exist?*
*   *Is the curriculum subject to external accreditation? If so, list the accrediting body and the most recent accreditation for your program.*
*   *If the program curriculum differs significantly from these benchmarks, explain how the Collin College curriculum benefits students and other college constituents.*

The Fire Science program remains current by following a state mandated curriculum for both focus options: Basic Firefighter certification, and Fire Officer certification. The state curriculums are built on the *National Fire Protection Association (NFPA) 1001: Standard for Fire Fighter Professional Qualifications,* and *NFPA 1021: Standard for Fire Officer Professional Qualifications*.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Each is accredited by the International Fire Service Accreditation Congress (IFSAC). Every five (5) years the NFPA Standards are reviewed and updated. The state regulatory agency (Texas Commission on Fire Protection) then updates the curriculum. IFSAC reviews the all curricula at the state agency every three (3) calendar years.

Collin offers an extensive program designed to meet the needs of area fire department employers. The Basic Firefighter Curriculum at Collin College follows THECB course guidelines and exceeds what other colleges offer for a similar program. Collin's Fire Academy program was the first in the state to offer Basic Firefighter Certification as a college credit program and set the standard for course development within the state. While some college programs do not include all of the THECB course offerings leading to Basic Firefighter or EMT certification, Collin's comprehensive program includes all seven (7) Basic Firefighter Certification courses and three (3) courses leading to EMT certification as the minimum requirement for the certificate program (See Table 7. Local College Program Comparison). Most all fire departments in the North Texas area require EMT certification for employment. The Fire Officer certificate program at Collin includes courses enabling students to earn four state certifications within the Fire Officer focus option. Area fire departments require these certifications for promotion of personnel to leadership positions.

State certification courses are monitored and regulated by the Texas Commission on Fire Protection. Whether offered as credit or non-credit, all certification course offerings require a Training Prior Approval (TPA) number. State officials are provided Canvas access for each online course. On site courses can be audited at any time class is in session with/without prior notification. On-line courses can be audited anytime the course is available to students (see **Appendix C** for a TCFP on-line course audit report).

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Basic Fire Fighter Certificate Program	Courses	COLLIN COLLEGE	TARRANT COUNTY COLLEGE	WEATHERFORD COLLEGE	NORTH CENTRAL TEXAS COLLEGE	MCLENNAN COUNTY COLLEGE
FIRS 1301	Firefighter Certification I	X	X	X	X	X
FIRS 1407	Firefighter Certification II	X		X		X
FIRS 1313	Firefighter Certification III	X	X	X	X	X
FIRS 1319	Firefighter Certification IV	X	X	X	X	X
FIRS 1323	Firefighter Certification V	X	X	X	X	X
FIRS 1329	Firefighter Certification VI	X	X	X	X	X
FIRS 1433	Firefighter Certification VII	X		X		X
FIRT 1338	Fire Protection Systems		X			
FIRS 1103	Firefighter Fitness and Agility				1203	X
EMSP 1160	Clinical EMT	X				
EMSP 1371	Introduction To EMT	X				
EMSP 1501	EMT	X				
TOTAL SCH		32	18	23	18	24

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Table 7. Local College Program Comparison. This chart shows the various college curriculum outlines for state certification as a Basic Firefighter. Note that Collin is the only program to include the requirement of EMT as part of the program. State certification for firefighter requires a "medical component." While other colleges may offer EMT or similar training, they do not include it in their curriculum leaving the student to find a suitable course on their own.

D. **Present evidence from advisory committee minutes, attendance, and composition that the advisory committee includes employers who are actively engaged on the committee and who are representative of area employers.**
   1. How many employers does your advisory committee have? _____ **15** _____
   2. How many employers attended the last two meetings?   ___Apr. 2019: **11**; Dec. 2019: **9** _____
   3. How has the advisory committee impacted the program over the last five years (including latest trends, and insights into latest technologies)?

   The Fire Science advisory committee members are active in providing insight and recommendations for improvements to the program. Advisory committee meeting minutes revealed discussion on the following: (see **Appendix D** for Sample Fire Science Advisory Committee Meeting Minutes).

   Dec. 2015 - The location for the new training facility was announced, and members provided suggestions for training props including solar panels, forcible-entry props, fireplaces, swimming pools, LP gas props, confined space and loading dock props. It should be noted that all but the solar panels and swimming pool ideas were including in the final design and construction of Collin's Public Safety Training Center.

   Feb. 2017 -Committee members supported the removal of FIRT 2351 as a required course, and suggested the continuation of offering select state certifications as a non-credit (CE) option. Members expressed concern about aging fire apparatus (14 yrs.) used in the program.

   Dec. 2017 – Recommendation to be more active on Facebook as a means of showcasing the Fire Science program and restatement of concern for use of outdated fire engines in the program.

   Nov. 2018 – Recommendation for Rope Rescue I, II classes to be offered.

   Apr. 2019 – Committee members expressed support for budget increases to include the acquisition of new radios, and SCBA units. Members were informed that the Richardson Fire Department donated there Driving Simulation trailer to the Fire Science program.

   Dec. 2019 – Wylie FD attempted to donate radios to the program, but failed to function. Committee members approved a proposal for use of Excellence Funds (scholarships) to provide 100% course fee coverage for Volunteer Fire Departments in Collin County, with the remaining to be used by paid firefighters enrolled in CE certification courses.

   4. Briefly summarize the curriculum recommendations made by the advisory committee over the last five years.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Over the last five years the Fire Science Advisory Committee played an integral role in curriculum recommendations including: support of AAS revision collapsing two AAS degrees (AAS-Firefighter and AAS-Fire Officer) into one AAS-Fire Science (2020); development of Rope Rescue I, II courses (CE), and support of creating Prior Learning Assessment (credit by exam) opportunities for students.

E. **Make a case with evidence that the program is well-managed.**
   Suggested/possible points to consider: (Data elements can be found on CougarWeb under My Workplace>Institutional Research>Institutional Research files for Program Review [on the lower left].)
   - *Average class size*
   - *Grade distributions*
   - *Contact hours taught by full-time and part-time faculty*
   - *Identify all courses that have a success rate below 75%. If any of these are core courses, visit with the discipline lead for the course(s) in question to determine whether or not the content of the course(s) is appropriate to the workforce program learning outcomes. Using assessment evidence and instructor observations, identify the student learning outcomes that are the greatest challenges for students in courses with low success rates. Explain what instructional and other intervention(s) might improve success rates for each identified course.*
   - *How well are general education requirements integrated with the technical coursework?*
   - *Student satisfaction: What evidence do you have that students are satisfied with the program? What kinds of complaints are made to the associate dean/director by program students?*

   The Fire Academy program's optimal enrollment is 24 students per cohort. Since teamwork and leadership play an integral role in real-world firefighting operations, each Fire Academy class is divided into six companies (teams). Companies are comprised of 3 Engine Companies and 3 Truck Companies. This division of workforce resources simulates real-world fire department protocols. Each company has specific tasks to accomplish when responding to emergencies. Engine companies are typically assigned to Fire Attack and Water Supply, while truck companies are assigned Search/Rescue and Ventilation tasks.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Fire Academy

Average Class Size By Term	FY 2016		FY 2017		FY 2018		FY 2019		FY 2020	
	Fall 2015	*Spring 2016*	*Fall 2016*	*Spring 2017*	*Fall 2017*	*Spring 2018*	*Fall 2018*	*Spring 2019*	*Fall 2019*	*Spring 2020*
FIRS 1301	22	17	25	26	23	23	24	27	26	24
FIRS 1313	22	17	25	26	23	23	24	27	26	24
FIRS 1319	22	17	25	26	23	23	24	27	26	24
FIRS 1323	24	17	27	23	22	23	25	23	27	23
FIRS 1329	24	17	27	23	22	23	25	23	27	23
FIRS 1407	22	17	25	26	23	23	24	27	26	24
FIRS 1433	24	17	27	23	22	23	25	23	27	23

Table 8. Class Size by Term – Fire Academy. *This chart shows the number of students in each Fire Academy cohort. Optimal enrollment is 24 students for each cohort. In some cases, class size was exceeded to accommodate a specific request from a local fire department to add students after the applicant selection process was complete. A class size smaller than 24 is a result of insufficient quantity of qualified applicants for the program.*

Fire Science

Average Class Size By Term	FY 2016		FY 2017		FY 2018		FY 2019		FY 2020	
	Fall 2015	*Spring 2016*	*Fall 2016*	*Spring 2017*	*Fall 2017*	*Spring 2018*	*Fall 2018*	*Spring 2019*	*Fall 2019*	*Spring 2020*
Technical Core										
FIRT 1301	19	23	21	20	20	20	23	23	22	23
FIRT 1315	-	22	-	25	-	18	-	16	-	13
FIRT 1327	17	-	21	-	16	-	15	-	12	-
FIRT 1338	-	12	-	11	-	10	-	11	-	10
FIRT 1349	-	5	-	8	-	5	-	-	-	7
Fire Officer Certificate										
FIRT 1442	27	10	16	7	14	9	13	10	12	6

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

FIRT 1443	16	8	11	10	12	-	9	10	6	11
FIRT 2305	25	9	14	8	12	5	9	11	11	9
FIRT 2307	19	10	14	8	11	4	13	7	6	5
FIRT 2309	15	-	9	-	8	-	-	8	-	6
FIRT 2351	-	9	-	8	-	-	5	-	-	-

Table 9. Class Size by Term – Fire Science. *This chart shows the number of students enrolled in Fire Science courses as part of the Fire Science technical core and Fire Officer certificate.*

Grade distribution for the past five years indicates success among students enrolled in the Fire Academy and Fire Officer programs. Completion and Success Rates are high due to two significant factors: selective admissions and minimum grade requirements for the program's continuance. The particular admissions process requires students to take the Accuplacer Reading, Writing and Math tests, complete a physical ability test, background check, and personal interview. All of these activities mimic typical fire department employment requirements. Students in the fire Academy are required to maintain a minimum exam score average of 75 (see **Appendix E** for full grade distribution data).

Fire Academy Grade Distribution Averages Fall 2016 – Spring 2020		**A**	**B**	**C**	**D**	**P**	**F**	**W**	Completion Rate	Success Rate
Course										
CHEM 1405	Intro to Chemistry I	29%	28%	19%	7%	0%	8%	9%	91%	76%
EMSP 1160	EMT Paramedic-Basic	69%	21%	4%	0%	0%	5%	1%	99%	95%
EMSP 1371	Intro to EMT	49%	40%	10%	0%	0%	1%	1%	99%	98%
EMSP 1501	Emergency Medical Technician	31%	61%	5%	0%	0%	1%	2%	98%	97%
FIRS 1301	Firefighter Cert. I	56%	40%	2%	0%	0%	1%	1%	99%	98%
FIRS 1313	Firefighter Cert. III	56%	40%	2%	0%	0%	1%	1%	99%	98%

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

FIRS 1319	Firefighter Cert. IV	56%	40%	2%	0%	0%	1%	1%	99%	98%
FIRS 1323	Firefighter Cert. V	56%	41%	1%	0%	0%	0%	1%	99%	99%
FIRS 1329	Firefighter Cert. VI	56%	41%	1%	0%	0%	0%	1%	99%	99%
FIRS 1407	Firefighter Cert. II	56%	40%	2%	0%	0%	1%	1%	99%	98%
FIRS 1433	Firefighter Cert. VII	56%	41%	1%	0%	0%	0%	1%	99%	99%

Fire Officer Grade Distribution Averages Fall 2016 – Spring 2020		A	B	C	D	P	F	W	Completion Rate	Success Rate
Course										
CHEM 1405	Intro to Chemistry I	29%	28%	19%	7%	0%	8%	9%	91%	76%
ENGL 2311	Technical and Business Writing	57%	18%	7%	2%	0%	8%	7%	93%	82%
FIRT 1315	Hazardous Material	64%	10%	11%	1%	0%	9%	6%	94%	84%
FIRT 1327	Building Construction in Fire Service	58%	41%	1%	0%	0%	0%	0%	100%	100%
FIRT 1338	Fire Protection Systems	72%	22%	2%	0%	0%	4%	0%	100%	96%
FIRT 1349	Fire Administration II	76%	20%	0%	0%	0%	4%	0%	100%	96%
FIRT 1442	Fire Officer I	93%	3%	1%	0%	0%	2%	1%	99%	97%
FIRT 1443	Fire Officer II	96%	4%	0%	0%	0%	0%	0%	100%	100%
FIRT 2305	Fire Instructor I	96%	1%	0%	0%	0%	3%	1%	99%	96%

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.
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FIRT 2307	Fire Instructor II	94%	2%	0%	0%	0%	2%	2%	98%	96%
FIRT 2309	Firefighting Strategies & Tact I	91%	7%	0%	0%	0%	2%	0%	100%	98%
FIRT 2351	Company Fire Officer	91%	5%	0%	0%	0%	0%	5%	95%	95%

Table 10. Grade Distribution. The grade distribution chart indicates an overall 98% completion rate and 93% success for the Fire Academy program; and a 97% completion rate and 93% success rate for Fire Science.

Fire Academy and Fire Officer students benefit from quality instruction provided by adjunct and full-time faculty and part-time skill instructors representing a wide variety of fire departments in the area. The program recently added 2 full-time faculty members. This addition offers a better balance in student/faculty communication within each cohort. The FT/PT faculty ratio still remains imbalanced in favor of part-time faculty. As an advantage, part-time faculty bring current and relevant field practices into the program through their instruction. The disadvantage of utilizing numerous part-time faculty in the program is the lack of consistency in each cohort. This is especially evident during skills instruction since part-time skills instructors are limited to 19.5 hrs./wk of work time.

Contact Hours Taught by Faculty Employment Status	Full-Time Faculty		Part-Time Faculty		
	Number	Percent	Number	Percent	Total Cont. Hrs.
Fall 2020	2,688	**12%**	20,352	**88%**	23,040
Fall 2019	0	0%	24,768	100%	24,768
Fall 2018	0	0%	23,008	100%	23,008
Fall 2017	4,656	19%	19,344	81%	24,000
Fall 2016	5,584	20%	22,368	80%	27,952

Table 11. FT/PT Faculty Ratio. With the hiring of two FT faculty in August 2020, an imbalance in the ratio of contact hours taught by FT faulty compared to PT Faculty remains.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

The general education requirements are integrated within the degree plan. The Associates of Applied Science Degree – Basic Firefighter Certification requires a minimum of 15 credit hours of general education courses. This includes: at least three semester credit hours from humanities/fine arts; at least three semester credit hours from social/ behavioral sciences; and at least three semester credit hours from natural sciences/ mathematics. The AAS degree plans allow students to choose from a selection of specified courses to meet their general education requirements. These general education course options are listed on the degree plan.

After each Fire Academy program, students complete a program evaluation. Data from the evaluations is used to determine the satisfaction level with PT-Skills Instructors and the overall program. Information from the evaluations is used to make minor changes in the program. For example, students stated that scheduling the Building Construction and Search Techniques segment would be better earlier in the program. This suggestion was implemented in subsequent classes. Below are comments taken from the program evaluation process:

"Loved this Academy!"
"Instructor _____ was great! But you better have a cup of coffee before class."
"Greatest Class ever!!!"
"Amazing Academy. ZERO complaints about the curriculum or instructors. Made me grow not only as a firefighter, but a man."
"Instructor _____ should speak/teach on our level and not so advanced that everything is over our heads, and should be more organized.
"Has a blast, learned a lot from everyone and would do it again in a heartbeat."
"I brag about this Academy to everyone I possibly can. So many people I talk to are shocked by what we cover in this in a great way. Superb job y'all! Even with the Covid, y'all went above and beyond to make it as perfect as possible for us (smiley face). Most of the instructors care so much and want us to do well. Very appreciative of how most of the instructors handled me being the only female. I liked not being babied. Thank y'all so much!"
"Instructor _____ should be more open-minded to what we've actually been taught before saying we are totally wrong."
"Overall a very great experience with very knowledgeable instructors! I liked having the variety of instructors but would like to see more consistency and preparation on testable skills. Some instructors were not consistent in teaching the skills as lined out by the State."
"Instructor _____ taught me more than just firefighting techniques -he showed me what kind of firefighter I want to become. _____ is a great man and instructor. I thoroughly enjoyed every chance I had to talk to him. Overall I loved my experience and all of the

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

instructors I worked with. I came into this academy honestly having no idea anything about firefighting, and I can't believe how much I learned and know now, which is not very much at all compared to the instructors and _____, who also taught me so much and is one of my biggest role models.

6. HOW EFFECTIVELY DO WE COMMUNICATE, AND HOW DO WE KNOW?

A. Make a case with evidence that the program literature and electronic sites are current, provide an accurate representation of the program, and support the program's recruitment plan, retention plan and completion plan.

Suggested/possible points to consider:
- *Demonstrate how the program solicits student feedback regarding its website and literature and how it incorporates that feedback to make improvements.*
- *Designate who is responsible for monitoring and maintaining the program's website, and describe processes in place to ensure that information is current, accurate, relevant, and available.*

The Fire Science Program website highlights the latest course information for all courses within the department including CE course offerings. Students interested in the Fire Academy will find a printable program application and detailed information about the process for this selective admissions program. Student's typically contact the Fire Science office for answers to questions not covered on the website and report any outdated material postings. Postings to the department Facebook page serve as reminders for upcoming classes and registration deadlines. The program web site and Facebook page are maintained by Nancy Donaldson. The Fire Director of Fire Science approves all materials before posting.

Program website:
URL http://www.collin.edu/firescience/
Fire Training Coordinator, Nancy Donaldson, monitors and maintains the Fire Science program website. The Director of Fire Science approves materials such as course flyers and program applications prior to posting. The website is updated a minimum of two times each year.

Catalog Information:
http://www.collin.edu/academics/2020-21%20Collin%20College%20Catalog%2010.28.pdf
Fire Academy course information is available on page 110 (PDF p.118) of the catalog.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Program Facebook page:
http://www.facebook.com/Collin-College-Fire-EMS-193267030772440/
Fire Training Coordinator Nancy Donaldson is responsible for monitoring and updating the Fire Science Facebook page. Photos and/or informative posts are approved by the Director of Fire Science prior to posting.

B. **In the following Program Literature Review Table, document that the elements of information listed on the website and in brochures (current academic calendars, grading policies, course syllabi, program handouts, program tuition costs and additional fees, description of articulation agreements, availability of courses and awards, and local job demand in related fields) were verified for currency, accuracy, relevance, and are readily available to students and the public.**

Program Literature Review Table 12

Title	Type (i.e. URLs, brochures, handouts, etc.)	Date of Last Review/Update		Responsible Party
2020-2021 Collin College Catalog	On-line Catalog http://www.collin.edu/academics/catalog.html	12/15/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	District Responsibility

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Fire Science Info Sheet	https://www.collin.edu/academics/info/FireScienceInfoSheet.pdf	12/18/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	District Responsibility
Fire Academy Collin College	Printed Color Brochure	12/6/17 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	Program Director, PR
Collin College Request for Degree Plan/Certificate	Admission Links	12/15/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	District Responsibility
Catalog Degrees, Plans and Programs	Web Site http://www.collin.edu/academics/2020-21%20Collin%20College%20Catalog%2010.28.pdf	12/15/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	District Responsibility
Welcome	Web Site http://www.collin.edu/campuses/centralpark/Index.html	12/15/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	District Responsibility

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

EMT/Fire Science Assessments	Web Site http://www.collin.edu/studentresources/testing/availabletesting/emt_fire.html	12/15/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	District Responsibility
Fire Science Department Main Information	Web Site http://www.collin.edu/firescience/	12/15/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	Fire Training Coordinator
Fire Science Exemption	Web Site http://www.collin.edu/gettingstarted/financialaid/firescienceexemption.html	12/15/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	District Responsibility
APPLICATION FOR BASIC FIREFIGHTER CERTIFICATE PROGRAM	Web Site pdf http://www.collin.edu/firescience Fire Academy Application (Spring 2021)	12/18/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	Fire Training Coordinator
Basic Fire Academy Requirements	Web Site PDF http://www.collin.edu/firescience Certificates Fire Officer Basic Firefighter	12/18/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	Fire Training Coordinator

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Fire Science Degree Programs	Website PDF http://www.collin.edu/firescience Degree Programs AAS - Fire Officer AAS - Basic Firefighter	12/18/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	Fire Training Coordinator
Fire Science Fire Training Schedule	Website PDF 2020/2021 Fire Training Schedule	12/18/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	Fire Training Coordinator
Fire Science Class Flyers	Website PDF Class Flyers	12/18/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	Fire Training Coordinator
Fire Science Facebook	**Join us on Facebook**	12/18/20 (reviewed)	✓ Current ✓ Accurate ✓ Relevant ✓ Available	Fire Training Coordinator

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

7. HOW WELL ARE WE LEVERAGING PARTNERSHIP RESOURCES AND BUILDING RELATIONSHIPS, AND HOW DO WE KNOW?

Partnership Resources: On the table below, list any business, industry, government, college, university, community, and/or consultant partnerships, including internal Collin departments, to advance the program outcomes.

Collin College has enjoyed long standing partnerships with area fire departments for access to facilities and apparatus in order to conduct the program within state mandated guidelines. In 2014 the Fire-Rescue Training Facility located on the Central Park Campus was demolished to make room for the Cary A. Israel Health Science Center. From 2014-2018, the college contracted annually with Richardson Fire Department for the use of their facility to conduct live-fire training exercises. Usage of Garland and Lewisville facilities was on a fee basis.

In 2018, Collin College opened the Public Safety Training Center in partnership with the Cities of McKinney and Allen. This new facility is the home for the Fire Science and Law Enforcement programs. Collin continues to utilize aerial apparatus provided by McKinney FD to conduct the required aerial ladder climb within the curriculum. Students benefit from tours to the Dallas Fire-Rescue Dispatch Center and Fire Museum.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Partnership Resources Table 13

Partner	Description (See Points to Consider)	How is it Valuable to the Program
Richardson Fire Department Training Facility	Facility usage	From 2014-2018, the program rented this facility to meet state requirements.
Lewisville Fire Department	Prop usage	From 2014-2018, the program utilized "Flashover Chamber" to demonstrate actual flashover phenomena to students.
Garland Fire Department	Prop usage	From 2014-2018, the program rented this facility to meet state requirements for Liquified Petroleum Gas (Propane) fire training.
McKinney Fire Department	Aerial Apparatus	Program utilizes this apparatus to meet state training requirements.
Dallas Fire Department	9-1-1 Dispatch and Fire Museum	Students tour these facilities to reinforce lessons on receiving/transmitting an emergency call; and gaining historical perspective to advancements in the firefighting profession.

8. WHAT PROFESSIONAL DEVELOPMENTAL OPPORTUNITIES ADD VALUE TO YOUR PROGRAM? PROVIDE A LIST OF PROFESSIONAL DEVELOPMENT ACTIVITIES EMPLOYEES HAVE PARTICIPATED IN SINCE YOUR LAST PROGRAM REVIEW.

Employee Resources Table 14

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Employee Name	Role in Program	Professional Development Summary	How is it Valuable to Program
Pat McAuliff	Director -FT	Presiding Officer – Texas Commission on Fire Protection Curriculum and Testing Committee	Serving as Chair since inception of the committee in 1989 (31 yrs.). All state certification curriculums are developed by this committee.
Nancy Donaldson	Fire Training Coordinator - FT	Cougar Mart Training Banner Training Customer Service Training	Training provides back-up resource for routine office and registration functions.
George Malone	Operations Manager - FT	North Texas Fire Marshal Conf. Canvas Boot camp Training Canvas Readiness Canvas Grade Book	Attending the annual North Texas Fire Marshal's Conference provides insight to the latest investigation and fire protection methods used in the DFW Metroplex area.
Scott Kerr	Fire Academy Coordinator - FT	Traffic Incident Management System Canvas Boot Camp Training	Provides valuable information for incorporating latest safety measures within the Fire Academy curriculum.
Mark Lacey	Professor -FT	New Faculty Academy Fire Officer I Officer Certification Canvas for O-line courses Quality Matters Workshop and Certificate Interview Coaching	Obtaining Fire Officer I state certification qualifies faculty member to teach courses outside of current assignment. Interview Coaching assists in preparing students for entry into the fire service upon completion of firefighter training.
Carl McMurphy	Professor – FT	New Faculty Academy	Obtaining Incident Safety Officer and Plans Examiner I state certifications

	Skills Instructor	Incident Safety Officer Certification	qualifies faculty member to teach courses outside of current assignment.
	CE Instructor	Plans Examiner I Certification	

9. ARE

FACILITIES, EQUIPMENT, AND FUNDING SUFFICIENT TO SUPPORT THE PROGRAM? IF NOT, PLEASE EXPLAIN.
[OPTIONAL—ONLY RESPOND TO PROMPT 9 IF YOU ARE REQUESTING IMPROVED RESOURCES FOR YOUR PROGRAM. IF CURRENT FACILITIES AND BUDGET ARE ADEQUATE, PLEASE PROCEED TO PROMPT 10.]

Make a case with evidence that current deficiencies or potential deficiencies related to facilities, equipment, maintenance, replacement, plans, or budgets pose important barriers to the service unit or student success. As part of your response, complete the resource tables, below, to support your narrative.
Possible points to consider:
- *The useful life of structure, technologies and equipment*
- *Special structural requirements*
- *Anticipated technology changes impacting equipment sooner than usual*

The Fire Science program at Collin currently owns three fire engines – no ladder truck (ie: apparatus equipped with an aerial ladder 75'-110' in length used to reach elevated heights for the purpose of rescue and fighting fires). Two of the fire engines were purchased at the same time, approximately 17 years ago. Repairs to both vehicles have been costly over the last several years. Repair expenses for 2018-19 exceeded $34,000. For the 2013-2018 period, we spent in excess of $87,000.00 for repairs to these two vehicles. In March 2020, Collin College acquired a new fire engine through a 7-year lease/purchase agreement.

Our intention is to retain our existing apparatus as "reserve" or secondary use vehicles, and acquire two new vehicles to be used as front-line vehicles through a leasing program offered by the manufacturer. There are several advantages of retaining our current vehicles for a short period. The vehicles will help in the event an apparatus is out of service. We currently either shift training exercises or cancel a class when one of our apparatus is down for repairs. Having reserve apparatus will allow us to continue with our scheduled classes. By having reserve apparatus, students will not experience "down time" while waiting their turn to learn skills such as loading/deploying hose, driving, and daily apparatus checks. Since the new apparatus would be "front line" equipment, maintenance of existing apparatus should cost around $5,500.00.

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Collin E-1						Replace with 5 yr. lease		
Collin E-2				Replace with 5 yr. lease				
Collin E-4	Initiated 7 yr. Lease					Renew 7 yr. Lease		
Ladder T-3			Initiate 7 yr. Lease					

Table 15. Fire Apparatus Replacement Cycle. This chart shows a replacement plan for aging fire apparatus used in the Fire Science program. Individual color bars represent annual lease periods for a single apparatus. The goal is to have four apparatus for use any given year.

Equipment/Technology Table 16

Significant Pieces of Equipment	Description (i.e. Special Characteristics)	Meets Needs (Y or N): Current	Meets Needs (Y or N): For Next 5 Years	Analysis of Equipment Utilization
Engine 1 E1 Typhoon	Fire Pumper on Custom Chassis	N	N	17 yr. old apparatus does not meet needs of Driver Operator Training Programs
Engine 2 E1 Freightliner	Fire Pumper Commercial Chassis	N	N	17 yr. old apparatus does not meet needs of Driver Operator Training Programs
Utility Van	Support Off Site Transportation	N	N	Unit has 148K Miles and is worn out.
Full Size 4X 250 Pick Up	*Support Off Site Transportation*	*Y*	*N*	*Unit has 95K Miles approaching end of usable life. Will not tow Driving Simulation Trailer.*
Rescue Tool #1 TNT	Hydraulic Rescue Tool	Y	N	Units past replacement dates

Financial Resources Table 17

Source of Funds (i.e. college budget, grant, etc.)	Meets Needs (Y or N): Current	Meets Needs (Y or N): For Next 5 Years	For any no in columns 2 or 3, explain why	For any no in columns 2 or 3, identify expected source of additional funds
College budget	Y	N	With the opening of the new Public Safety Training Center, new equipment and additional staffing will be required to utilize the facility to its fullest capabilities.	Additional funding provided through the annual budget process with supporting justifications.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Section III. Continuous Improvement Plan (CIP)

10. HOW HAVE PAST CONTINUOUS IMPROVEMENT PLANS CONTRIBUTED TO SUCCESS?

Program Review at Collin College takes place for each unit or program every five years. During the last (fifth) year, the program evaluates the data collected during the CIP process.

Please describe how you have used your Continuous Improvement Plan (CIP) to make the following improvements to your program over the past 4 years (your last program review can be found on the Program Review Portal):

a. **Program Learning Outcomes/Program Competencies**

The Continuing Improvement Plan (CIP) process provides a method for identifying areas within the Fire Science program needing improvement and/or modification. Licensure Pass Rates are a critical indicator of a programs overall success. New students seeking quality programs for their career training and education look at pass rates as a guide when selecting a school. The Fire Science program utilizes state exam results as a key element in the CIP process. The program Director receives performance data from the Texas Commission on Fire Protection on each subject area within a state certification exam. Any area falling below a 70% pass rate is reviewed. Each cycle of the Fire Science CIP includes a select group of subject areas needing improvement. The improvement plan typically includes an increase in the number of test questions related to the subject on periodic exams administered during the course of instruction. By providing more emphasis on the subject area, students tend to score higher on the state certification exam (see **Appendix F** for previous CIP tables).

Continuing Improvement Plan Examples				
Fire Officer NFPA Learning Outcome	2016 Data Results / Findings		2017 Data Results / Findings	
4.2.2 Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained.	57.29%	Standard (70%) not met	80.79%	Standard met

Basic Firefighter NFPA Learning Outcome	2018-19 Data Results / Findings		2019-20 Data Results / Findings	
4.3.3(a) Identify precautions necessary when providing emergency medical care to victims of hazardous materials/WMD incidents.	Class #72 – N/A Class #73 – 8% Class #74 – 33.33 Overall – 20%	Standard (70%) not met	Class #75 – n/a Class #76 – n/a Class #77 – 40.91% Overall: 40.91%	Improvement, but Standard (70%) not met. Note that only one exam during this data period included questions for this learning outcome.

Table 18. Examples from Continuing Improvement Plans. Above are examples from both Basic Firefighter Certificate and Fire Officer Certificate Continuing Improvement Plans showing specific learning outcomes identified by the National Fire Protection Association (NFPA), data results, and findings. Test questions on the state certification exams are correlated to specific NFPA Job Performance Requirements (JPRs). Student exam performance data establishes a framework for developing and implementing continuous improvement plans.

b. **Overall improvements to your program**

Information obtained from past Continuous Improvement Plans has helped to improve the program in two areas. We have seen improved scores on state exams in select areas, and little movement in other areas. For the subject areas with little change in state exam scores, we have determined, in most cases, the state exam only had one question related to that subject area. A single question is not a reliable measure of overall student knowledge.

In addition to improved scores, another benefit is improved discussion between faculty members and skills instructors towards helping our students. Skills instructors recognize the value of relating the cognitive level learning to the application level of learning and are able to reinforce key elements in select learning outcomes within the curriculum.

11. HOW WILL WE EVALUATE OUR SUCCESS?

NOTE: PLEASE CONTACT THE INSTITUTIONAL EFFECTIVENESS OFFICE IF YOU NEED ASSISTANCE FILLING OUT THE CIP TABLES.

As part of the fifth year Program Review, the program should use the observations and data generated by this process along with data from other relevant assessment activities to develop the program's CIP and an action plan for the next two years. At the conclusion of the first two years, data collected from the first year, plus any other relevant data that was collected in the interim, should be used to build on the accomplishments of those first two years by developing another two-year action plan for the CIP to help the program accomplish the expected outcomes established in its CIP or by implementing one of your other plans.

Based on the information, analysis, and discussion that have been presented up to this point, summarize the strengths and weaknesses of this program. There should be no surprise issues here! This response should be based on information from prior sections of this document. Describe specific actions the faculty intends to take to capitalize on the strengths, mitigate the weaknesses, improve student success and program learning outcomes. Provide the rationale for the expected outcomes chosen for the CIP(s).

Program Strengths

The Fire Science program is responsive to the needs of area employers and students. The recent revision of the AAS Degree demonstrates awareness to the changing needs of the students. With recent increases in the number and type of state certifications available to firefighters, the implementation of Prior Learning Assessments (PLA) enabled the program to respond quickly to the demands of the students and employers.

The program has a strong applicant base allowing the program to select prime students for enrollment in the Basic Firefighter Certificate program. Approximately 35% of the applicants are selected for enrollment in the program. This ratio assures top quality candidates in the program. As noted by area Fire Chief's, Collin College Fire Academy graduates: "They have proven to be excellent firefighters and employees."

With an average pass rate of 95% for <u>all</u> state certification exams, the faculty and skills instructors in the program have demonstrated their commitment to student success. The continuing improvement process (CIP) cycle enables faculty to examine specific learning outcome measures and implement methods for improvement.

High retention rates indicate a strong student commitment to their responsibility as learners, and interest in the profession. Teaching is much easier when students want to learn.

With 374 completers in the last five years, the program far exceeds the minimum state requirement of 5 completers per year. This number demonstrates the need for the program in serving area fire department employers.

Program Weaknesses

Some learning outcomes are below the 70% success rate threshold. While following the program's Continuing Improvement Plan cycle, improvements are recognized, but some areas remain a challenge. This, in part, is typically a result of having only one question on a state certification exam for a

particular learning outcome. While students have knowledge in a specific area, the one question on the state exam may not be something that the student focused on. Since state exam questions are secure, it is difficult to determine where the emphasis should be placed.

Based on survey results, Collin College will need to increase the number of graduates from the Basic Firefighter Certificate program to meet the market demand for new firefighters in Collin County. Local Fire Chiefs project a hiring rate of 103.8 new firefighters each year through 2030 to meet the growth demands within Collin County. Adding an additional Fire Academy class will help meet the demand, but will require additional expenditures for equipment and apparatus.

As noted in the Equipment and Technology Table, the Fire Science program has aging fire apparatus and rescue tools. A vehicle replacement plan was submitted to leadership, and the first step was approved. The plan calls for the lease/purchase of new fire apparatus and cycling out our older vehicles over a 5-year period.

12. COMPLETE THE CONTINUOUS IMPROVEMENT PLAN (CIP) TABLES THAT FOLLOW.

A. Expected Outcomes Results expected in this program (e.g. Students will learn how to compare/contrast theories; Increase student retention in PSYC 2301)	B. Measures Instruments/processes used to measure results (e.g. surveys, end of term class results, test results, etc.)	C. Targets Level of success expected (e.g. 80% success rate, 25 graduates, etc.)
5.4.3 Describe the process of purchasing, including soliciting and awards bids, given the established specifications, in order to ensure competitive bidding so that needs of the organization are met within the applicable federal. State/provincial, and local always and regulations.	Certification Exam Fire Officer II	70% score or better in this subject area.
4.2.1(7)(f) Identify facility and transportation markings and colors that indicates hazardous materials/WMD, including: Container Markings	Certification Exam Basic Firefighter – Hazardous Materials	70% score or better in this subject area.

Within the context of the information gleaned in this review process and any other relevant data, identify program priorities for the next two years, **including at least one program learning outcome (or program competency)**, and focus on these priorities to formulate your CIP. You may also add short-term administrative, technological, assessment, resource or professional development outcomes as needed.

Table 1. CIP Outcomes, Measures & Targets Table (focus on at least one for the next two years)

Continuous Improvement Plan

Outcomes might not change from year to year. For example, if you have not met previous targets, you may wish to retain the same outcomes. *You must have at least one program learning outcome.* You may also add short-term administrative, technological, assessment, resource or professional development goals, as needed. Choose 1 to 2 outcomes from Table 1 above to focus on over the next two years.

A. **Outcome(s)** - Results expected in this program (from column A on Table 1 above--e.g. Students will learn how to compare/contrast Conflict and Structural Functional theories; increase student retention in Nursing Program).

B. **Measure(s)** – Instrument(s)s/process(es) used to measure results (e.g. results of essay assignment, test item questions 6 & 7 from final exam, end of term retention rates, etc.).

C. **Target(s)** - Degree of success expected (e.g. 80% success rate, 25 graduates per year, increase retention by 2% etc.).

D. **Action Plan** - Implementation of the action plan will begin during the next academic year. Based on analysis, identify actions to be taken to accomplish outcome. What will you do?

E. **Results Summary** - Summarize the information and data collected in year 1.

F. **Findings** - Explain how the information and data has impacted the expected outcome and program success.

G. **Implementation of Findings** – Describe how you have used or will use your findings and analysis of the data to make program improvements.

Table 2. CIP Outcomes 1 & 2

A. **Expected Outcome #1**	
5.4.3 Describe the process of purchasing, including soliciting and awards bids, given the established specifications, in order to ensure competitive bidding so that needs of the organization are met within the applicable federal. State/provincial, and local always and regulations.	
B. Measure (Outcome #1) Certification Exam Fire Officer II	**C. Target (Outcome #1)** 70% score or better in this subject area.
D. Action Plan (Outcome #1) Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	
E. Results Summary (Outcome #1) TO BE FILLED OUT IN YEAR 2	
F. Findings (Outcome #1) TO BE FILLED OUT IN YEAR 2	
G. Implementation of Findings (Outcome #1) TO BE FILLED OUT IN YEAR 2	

Table 2. CIP Outcomes 1 & 2 (continued)

A. **Expected Outcome #2** 4.2.1(7)(f) Identify facility and transportation markings and colors that indicates hazardous materials/WMD, including: Container Markings

B. **Measure (Outcome #2)**	C. **Target (Outcome #2)**
Certification Exam Basic Firefighter -Hazardous Materials Awareness	70% score or better in this subject area.

D. **Action Plan (Outcome #2)** Increase student exposure to DOT Container Markings through: 1. Increase examples (photos/illustrations) of DOT container markings in the classroom lecture presentation; 2. Include a container marking identification exercise during a simulated emergency response to a hazardous materials incident scenario.
E. **Results Summary (Outcome #2) TO BE FILLED OUT IN YEAR 2**
F. **Findings (Outcome #2) TO BE FILLED OUT IN YEAR 2**
G. **Implementation of Findings (Outcome #2) TO BE FILLED OUT IN YEAR 2**

What happens next? The Program Review Report Pathway

A. **Following approval by the Steering Committee,**
- Program Review Reports will be evaluated by the Leadership Team;
- Reports will be posted on the intranet prior to fall semester;
- At any point prior to Intranet posting, reports may be sent back for additional development by the department.

B. **Program responses to the Program Review Steering Committee recommendations received by July 31st will be posted with the Program Review Report.**

C. **Leadership Team members will work with program supervisors to incorporate Program Review findings into planning and activity changes during the next five years.**

Appendix A

Sampling of Firefighter Hiring Requirements
(Metroplex Area)

McKinney Fire Department

What are the minimum eligibility requirements to test for a position as a firefighter with the McKinney Fire Department?

- Must be 21 years of age by the date of hire and possess a high school diploma or GED and at least 30 hours of college credit, with a minimum GPA of 2.0.
- Applicants with an honorable discharge from the military as documented on the DD2-14 and who pass the written exam with a minimum passing score of 75% will receive an additional five points for military service.
- Neither Basic Firefighter Certification nor EMT / Paramedic Certification are required to apply. Must successfully complete all pre-employment testing. Must obtain valid Texas Class B driver's license within sixty days of hire, possess a good driving record and maintain a good driving record while employed.

(City of McKinney, 2020)

City of Plano

Certification

Plano Fire-Rescue requires that individuals applying to the department have a high school diploma or possess a GED equivalency certificate. Military personnel and out-of-state applicants should contact the [Texas Commission on Fire Protection Opens a New Window.](#)and [Texas Department of State Health ServicesOpens a New Window.](#) in order to obtain the requirements for moving certifications to Texas.

Applicants must provide proof of:

- Current certification as a "structural fire fighter" by the Texas Commission on Fire Protection
- Current Certification as an EMT-Paramedic or Licensed Paramedic by the Texas Department of State Health Services

Fire Administration will notify each candidate as to when they are to provide their certification documents.

Eligibility Requirements

The eligibility requirementsOpens a New Window. for Plano Fire-Rescue Specialist are established by the City of Plano Fire Fighters' and Police Officers' Civil Service Commission.

(City of Plano, 2020)

Coppell Fire Department

The Applicant must be 18 years of age with a high school diploma or GED equivalent.

The Applicant must possess a valid State of Texas Class C driver's license or be able to obtain a valid State of Texas Class C driver's license upon hiring.

In addition, MUST meet ONE of the following requirements:

- Paramedic Certification with the Texas Department of State Health Services or National Registry Paramedic Certification. (Fire Recruit salary $58,071.92 during sponsored Fire Academy)
- Basic Structure Fire Certification from the Texas Commission on Fire Protection or equivalent (IFSAC Seal FF1 & FF2) and enrolled in a Certified Paramedic Program (Fire Recruit salary $58,071.92 for remainder of EMT/P training)
- Basic Structure Fire Certification from the Texas Commission on Fire Protection or equivalent (IFSAC Seal FF1 & FF2) and Paramedic Certification with the Texas Department of State Health Services or National Registry Paramedic Certification (Firefighter/Paramedic $66,233.28)

(City of Coppell, 2020)

Dallas Fire Rescue

- Must be a citizen or a permanent resident of the United States.
- Must be at least 18 years of age and not have reached 36 years of age on the date the Civil Service written examination is given to be eligible for Trainee Fire and Rescue Officer.
- Must be at least 21 years of age on the date the Civil Service written examination is given for Trainee Fire Prevention and Inspection Officer (FPE&I).
- Must have a High School Diploma or G.E.D.
- Must have at least 45 semester hours of college for Fire Rescue Officer applicants and 60 hours for FPE&I applicants with a C average or better from an accredited college or university; or must have completed four years of active duty service in the Armed Forces of the US with an honorable discharge for Fire Rescue Officer and five years for FPE&I.
- Work experience credits, non-credit courses, or courses not transferable to an accredited institution will not be accepted.
- Technical courses, business skills courses, non-degree courses of study are not acceptable unless these are transferable to an accredited institution.
- Must complete the Candidate Physical Ability Test satisfactorily. Applicants are not required to retake the CPAT if they have passed it within the last 12 months.

- Must pass a medical examination administered by a physician selected by the City of Dallas, and be medically fit per City of Dallas Medical Guidelines for Uniformed Fire Personnel.
- Must have honorable discharge from military service, if applicable.
- Must possess or acquire an unrestricted Texas Motor Vehicle Operator's License (except for corrective lenses).
- Vision (20/40 in one eye & 20/100 in other eye correctable to 20/20 and 20/40)
- Must have a satisfactory previous employment record, if applicable
- Free from use of controlled substances or excessive use of alcohol

(City of Dallas, 2020)

City of Farmers Branch

Education and Experience

To be considered for the position of Firefighter/Paramedic:

- Complete an on-line application thoroughly and accurately. Complete all information as requested. "See Resume" will not be accepted as an answer and will deem the application as incomplete.
- Must be at least the age of 18.
- Have a High School Diploma or equivalent
- Have a valid Texas Commission on Fire Protection Basic Firefighter Certification or equivalent (IFSAC Seal FF1 and FF2)
- Have a valid Texas Department of State Health Services Paramedic Certification or National Registry Paramedic Certification, or be within 90 days of completion of a paramedic training program at time of application.
- Have a current, valid driver's license with a good driving record (no more than 3 citations/accidents within the last 3 years; no DWI/DUI convictions within the past 7 years)
- If applicable, an honorable discharge from the military
- Must complete a personality and reasoning assessment
- Must complete and pass a Physical Agility Test. Test date to be determined.
- If selected, must be available for Panel interviews and Fire Chief Interviews.
- If selected as a final candidate, must pass a pre-employment drug screen, polygraph test, psychological exam, criminal background check, and physical exam. (Jobing.com, 2020)

Town of Prosper

"Have a current certification as a "structural firefighter" by the Texas Commission on Fire Protection by the date of exam.
Have a current certification as an EMT-Paramedic or Licensed Paramedic by the Texas Department of State Health Services by date of the exam;"
(Town of Prosper, 2020)

THE CITY OF FORT WORTH FIRE DEPARTMENT

FIRE TRAINEE – JOB ID #60064 $ 19.19 hourly ($39,915 annually while in training) $ 28.09 hourly ($58,430 annually upon graduation)
QUALIFICATIONS: • 18-35 YEARS OF AGE (cannot have reached 36th birthday by the date of the entry-level test: Wednesday, January 6, 2021) • VALID and CURRENT DRIVER'S LICENSE o Required to obtain Class "B" driver's license during training • HIGH SCHOOL DIPLOMA, GED CERTIFICATE or 12 SEMESTER HOURS from an accredited college or university ADDITIONAL REQUIREMENTS: • Must live within thirty (30) minutes of a designated report-in station o Must be accomplished within six (6) months of employment • Successfully pass a written test, an aerobic capacity run, a physical assessment test, a background check, a polygraph examination, an interview board and a medical / physical examination. ADDITIONAL EXAM POINTS: Additional points up to a maximum of five (5) cumulative points shall be added to a passing exam score as follows: • Military Veteran = Five (5) points with Honorable Discharge, per DD214 Member 4 o Must email a copy of DD214 Member 4 to FWFDHiring@fortworthtexas.gov no later than Tuesday, January 5, 2021@ 9:00 AM • BENEFITS: https://www.fortworthtexas.gov/departments/hr
(City of Ft Worth, 2020)

City of Murphy

Applicants must be currently certified or must obtain certification as a Firefighter through the Texas Commission on Fire Protection (TCFP) and must be currently certified or must obtain certification as an Emergency Medical Technician Paramedic as issued by the Texas Department of State Health Services by September 16, 2020. Valid Class "B" Driver's License – driving record must comply. (Opt Resume, 2020)

City of Celina

Education
High School Diploma or GED
Certification and Other Requirements:
Texas Commission on Fire Protection Firefighter (Structural) Certification
Must be registered with the US selective service
Applicant must be at least 18 years of age
Must successfully complete all pre-employment testing/screenings
Must obtain a Texas Class B driver's license within first six (6) months of employment
 Preferred Qualifications:
Applicants that are both certified **Firefighter/EMT, Firefighter/ Paramedic Highly Preferred** (certified from the Texas Department of State Health Services).

Prior experience with a career fire department.

(City of Celina, 2020)

City of Mesquite

Requirements to Become a Mesquite Firefighter

To become a Mesquite Firefighter, you must be:
- A U.S. Citizen.
- At least 21 years of age, but no older than 35 years of age.

Candidates must have completed a minimum of either:
- Sixty (60) semester hours of college credit in general subjects from an accredited college or university*, or
- Two (2) years of active military service with an honorable discharge plus 30 semester hours of college credit in any subject from an accredited college or university*

College Credit Requirements
- Developmental/remedial courses are not accepted
- Grades lower than "C" are not accepted
- A letter grade of "P" will be accepted

Physical/Mental Requirements
- Vision: A candidate's vision must be correctable to 20/30, and with no color blindness.
- Hearing: Candidates may not be certified as eligible if audiometric testing shows average hearing loss in their unaided better ear greater than 40 decibels (dB) at 500 Hz, 1000 Hz, and 2000 Hz when the audiometric device is calibrated to ANSI Z24.5.
- Candidates must be mentally alert, have the ability to get along well with others, have a willingness to perform assigned duties and responsibilities, be conscientious and dependable and in excellent physical condition.
- Candidates must possess a valid Texas Class A or B Driver's License (upon assignment) and meet City driving requirements. Candidates must pass a qualifying physical agility and medical examination, including drug testing.
- Drug usage may be a disqualification, depending on the substance used and frequency of use.

An "accredited college or university" is an institution of higher education that is accredited by one of the following agencies: Southern Association of Colleges and Schools, Middle States Association of Colleges and Schools, New England Association of Schools and Colleges, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges or Western Association of Schools and Colleges. Coursework from a foreign college or university will also be accepted after being reviewed by an agency that is certified by the National Association of Credential Evaluation Services (NACES) to determine the course taken, credit received and letter grade earned.

Minimum requirements are set forth by the Civil Service Commission and are subject to change. (City of Mesquite, 2020)

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Appendix B

[Collin County Fire Departments]

Allen Fire Department

Phone survey (214-509-4400). Fire Chief Boyd had secretary respond with 5-10 year plan information.

- ➢ Will hire 6 firefighters per year for next 10 years
- ➢ **Total 60 Firefighters by 2030**

Celina Fire Department

Fire Chief Metdker provided the following information via phone call survey. (972-382-2653)

- ➢ 5-10-year plan (buildout 13-14 stations)
- ➢ 23 FF needed in 1st quarter of 2023 to staff that station. Will hire them in 2022.
- ➢ 5 years will need min. of 40 firefighters (8 per year avg.)
- ➢ 5-10 Years - 20- 25 more (10 per year avg.)
- ➢ **Total 200-250 Firefighters by 2030**

Fairview Fire Department

Phone interview with Fire Chief Bell (972-886-4238)

5-10-year plan

- ➢ 2 new firefighters over 5 years.
- ➢ Land locked
- ➢ **Total 10 Firefighters by 2026**

Farmersville Fire District

Phone call with Fire Chief Morris (972-292-6310)

5-10-year Plan

- ➢ 1 per year
- ➢ **Total 10 Firefighters by 2030**

Lavon Fire Department

Fire Chief Danny Anthony – Phone call interview.

5-10 Year Plan. (972-977-5299)

- ➢ Hire 3 in 2020
- ➢ 5-10 Years average hiring 3 per year.
- ➢ If funding is available, he would hire 5 per year
- ➢ Is wanting to talk to FC McAuliff about on-line classes
- ➢ Interested in using Collin College EMS program
- ➢ Advised he should come visit Chief McAuliff – He will call and schedule a time to meet.
- ➢ **Total 30 Firefighters by 2030**

Lucas Fire Department

E-mail response from Fire Chief Stephens.

- ➢ 2021-2026 3 Firefighters
- ➢ 3026-2030 6 Firefighters
- ➢ **Total 9 Firefighters by 2030**

Murphy Fire Department

E-mail response from Assistant Chief Greg Werner (972-468-4302)

- ➢ Landlocked
- ➢ **Total 5-7 Firefighters by 2030**

Parker Fire Department

Chief Sheff phone call interview for 5-10-year plan.

- ➢ 1 per year
- ➢ **Total 10 Firefighters by 2030**

Plano Fire Department

E-Mail response form Administrative Captain Brian Kanzaki (972-941-7295)

- ➢ 17 Firefighters per year average
- ➢ **Total 170 Firefighters by 2030**

Princeton Fire Department

Phone call with Operations Chief Michael Stiltz (214-585-1119)

➤ (5-year plan) 2021-2026 hiring 10 per year
➤ (10-year plan) 2021 – 2020 hiring 5 per year
➤ **Total 75 firefighters by 2030**

McKinney Fire Department

Phone survey with Fire Chief Danny Kistner about 5-10-year plan. (972-547-2850)

dkistner@mckinneytexas.org

➤ 100 over the next 5 years
➤ Average 20 per year for the next 10 years minimum.
➤ 2 new stations in 5 years
➤ **Total 200 Firefighters by 2030**

Melissa Fire Department

Phone survey with Chief Nix (972-838-2338 opt 1) about 5-10-year plan.

➤ Max buildout 4 stations (They do not run EMS)
➤ 3 single company stations 1 double company
➤ 4 per single company 4 per double company
➤ 20 per shift
➤ Plan on hiring 24 over the next 5 years (2021-2026)
➤ Additional staffing to fill out numbers over the following 5 years. (36 FF min. not counting administrative positions)
➤ **Total 60 Firefighters by 2030**

Richardson Fire Department

E-mail response from Assistant Chief Gene Senter (972-744-5702)

➤ 2-3 recruit classes per year with 12 per class every 5 years.
➤ **Total 48-72 Firefighters by 2030**

Royce City Fire Department

Phone interview with Fire Chief Royce Bell (972-524-4810) about 5-10-year plan. **(Paid/Vol)**

➤ Hiring 2 firefighters 2020
➤ Hiring 3 firefighters 2021
➤ Hiring 12 firefighters 2022
➤ Growth may require additional hiring as projected build out population is 210,000/126 Square Miles
➤ 10-year plan is to hire 15 more before 2030
➤ Average of 3+ per year over 10 years

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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➢ **Total 30 + Firefighters by 2030**

Wylie Fire Department
E-Mail response from Shelly Henning-Hoffman with Wylie FD.
➢ Average 4-5 per year
➢ **Total 45 Firefighters by 2030**

<u>**Other Agencies in Metroplex**</u>

Addison Fire Department
Phone interview with Deputy Chief Alexander (972-450-7203)
➢ Budgets 1 per year for retirements
➢ **Total 10 Firefighters by 2030**

Arlington Fire Department
E-mail and phone call with Fire Department Administrative Assistant - Terri Lynch (817-459-5500)
➢ Hiring 15 Firefighters per year
➢ **Total 150 Firefighters by 2030**

Carrolton Fire Department
Phone interview with Assistant Chief Debbie Carpenter. (972-466-3208).
➢ Budgets for 4-5 retirees a year.
➢ Hiring 8 for 2 new ambulances
➢ Anticipates 1 new station in George Bush corridor
➢ **Total 80 Firefighters by 2030**

Coppell Fire Department
Phone interview with Battalion Chief Matt Uppole.
➢ Average 2 per year for attrition
➢ **Total 20 Firefighters by 2030**

Dallas Fire Department
Phone interview with Recruiter Driver Esteban Maldonado (214-670-0220)
➢ Hires 80-100 Firefighters per year.
➢ **Total 800-1000 Firefighters by 2030**

Desoto Fire Department
Called spoke with Fire Chief Jerry Duffield (972-230-9680)
- ➢ Hire 4 per year (5 year)
- ➢ **Total 20 Firefighters by 2026**

Farmers Branch Fire Department
Phone survey with Deputy Chief Lattemere (972-919-2640)
- ➢ Hiring 15 over the next 5 years (3 per year)
- ➢ No 10-year projections were provided.
- ➢ **Total 15 Firefighters by 2026.**

Forney Fire Department
Phone call with Assistant Chief Phillip Pyle (972-552-2211)
- ➢ (5 year) 15 firefighters– 3 per year
- ➢ (6- 10 year) 18 Firefighters – 3-4 per year
- ➢ **Total 33 Firefighters by 2030**

Fort Worth Fire Department
Phone interview with Assistant to the Fire Chief - Debbie Adams (817-392-6888)
- ➢ Hiring 60 on 2021
- ➢ Average 20 per year for attrition
- ➢ **Total 240 Firefighters by 2030**

Garland Fire Department
Phone interview with Recruiting Officer Kristi Shepherd (972-781-7149)
- ➢ **Total 100 Firefighters by 2030**
- ➢

Grand Prairie Fire Department
Phone interview with Assistant Chief CJ Grippin (972-237-8302)
- ➢ (5-year plan) Hiring 6 per year by 2026 – Total 30
- ➢ (6 –10-year plan) Hiring 2 per year by 2030 – Total 10
- ➢ **Total 40 Firefighters by 2030**

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Hurst Fire Department

E-Mail from Fire Chief David Palla – (817-788-7246)

➢ (5-year plan) Hiring 2 per year for retirements
➢ (6-10-year plan) Hiring 1 per year for retirement
➢ **Total 15 Firefighters by 2030**

Irving Fire Department

Phone interview with Fire Department Administrative Assistant Teresa Villasenor (972-721-4909)

➢ Budgets 10-15 per year for retirements
➢ **Total 150 Firefighters by 2030**
➢

Lancaster Fire Department

Phone call with (Training Chief) Battalion Chief William Rhodes. (972-218-2600)

➢ Averages 8-9 Firefighters per year
➢ **Total 80 Firefighters by 2030**

Lewisville Fire Department

Phone interview with Assistant Chief over Support Terry McGrath (972-219-3590)

➢ Anticipates hiring 3 Firefighters per year
➢ **Total 30 Firefighters by 2030**
➢

Mesquite Fire Department

Phone call with Fire Chief Mark Kerby, now serving as Special Projects Assistant City Manager. (972-288-7711)

➢ 2 new stations are planned (2021-2026)
➢ 21-22 Firefighters per station
➢ Budgets 3-5 Firefighters per year for retirements
➢ **Total 100 Firefighters by 2030**

Summary Metroplex and Collin County Firefighter Jobs

5-10 year Hiring Projections

Summary of the survey of Metroplex and Collin County Fire Departments conducted by Professor M.A. Lacey (5-10-year Strategic Plan for hiring firefighters, November 9-13, 2020).

Metroplex (excluding Collin County)

- Surveyed 20 Metroplex Departments
- 85% response rate (16/20 Departments)
- 208.3 Firefighters jobs **per year**
- 2083 Firefighters by 2030 (Respondents)

Collin County

- Surveyed 15 Collin Departments
- 93.75 response rate (15/16 Departments)
- 103.8 Firefighter jobs **per year**
- 1038 Firefighter job projected by 2030 (Respondents)

Total Metroplex (Including Collin County)

- Surveyed 35 Fire Departments
- 85.7% response rate (31/36 Departments)
- 305.6 Firefighter jobs **per year**
- 3,056 Firefighter jobs projected by 2030

Appendix C

TCFP On-Line Course Audit

On-Line Audit

Date of Audit:	11/05/2020	Discipline:	FO 1
TCFP Auditor:	Kenneth Barnett	Course Approval #:	1020315
Time of Audit:	1525	Web Site:	collin.instructure.com
Training Provider:	Collin Co. Community College	User Name:	
FDID #:	653	Password:	
Department Contact:	T. McAuliff	Able to conduct audit:	Yes ☑ No ☐*
Media Used (e.g., Blackboard, Moodle):	Canvas		

*If the answer is No, go to #17.

1. Does the site follow commission rules regarding advertising?		Yes ☑	No ☐
2. What type of access is provided? Circle one:		Guest (Student)	Inst. Admin.
3. Is site navigation easily understood?		Yes ☑	No ☐
4. Are student instructions clear and easy to understand?		Yes ☑	No ☐
5. Is there a course syllabus posted or provided to the student?		Yes ☑	No ☐
6. Is there a course schedule posted on the site?		Yes ☑	No ☐
7. Is the reference material accessible to the student?		Yes ☑	No ☐
8. Is there information for obtaining any required text books?		Yes ☑	No ☐
9. Is the instructor's contact information posted?		Yes ☑	No ☐
10. If a message is sent to the instructor, was a response received in a timely manner?		Yes ☐ N/A	No ☐
11. Is there an interactive medium available to the students (i.e., discussion boards, chat rooms, or email groups)?		Yes ☑	No ☐
12. Are assignments and instructions clear and easy to understand?		Yes ☑	No ☐
13. Is there an exam link and is it working properly?		Yes ☑	No ☐
14. Is the subject content being taught/tested follow current commission-approved curriculum requirements?		Yes ☑	No ☐
15. Are the instructor(s) the same as those listed on the Training Prior Approval?		Yes ☑	No ☐
16. If accessible, does the site allow viewing of student progress, grades, postings, etc.		Yes ☑	No ☐
17. Are records being requested for review? If yes, attach Record Audit form (TCFP-044c).		Yes ☐ N/A	No ☐
Complete questions 18 - 20 only if auditing a written test			
18. Do the procedures for testing follow commission rules?		Yes ☐	No ☑
19. Is there a process in place to ensure the student's comprehension of the material?		Yes ☐ N/A	No ☐
20. Is the final exam proctored or observed?		Yes ☐ N/A	No ☐
If observed, are "letters of assurance" being maintained?		Yes ☐	No ☐

Note: Negative responses require a detailed explanation on the Audit Notification form (TCFP-043).

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Texas Commission on Fire Protection

P.O. Box 2286, Austin, Texas 78768-2286, Office (512) 936-3838, Fax (512) 936-3808

Audit Notification

Date of Audit:	11/05/2020	TPA # or Skill Reference #:	1020315
FDID:	653	Training Provider Name:	Collin Co. Community College
TCFP Auditor:	Name:	Kenneth Ashley Barnett	
	Email Address:	ashley.barnett@tcfp.texas.gov	

An audit was conducted by a representative of the Texas Commission on Fire Protection and:

x No deficiencies were observed.

☐ **Deficiencies were observed (see comments below).** Deficiencies are to be corrected as soon as possible. Please send your response, noting either the correction or a plan of action to correct the noted deficiencies, to my attention at the address (physical or email) checked above within 30 days of this notice.

Comments:

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Auditor	11/5/2020	Department Representative*	__/__/__
	Date		Date

* Either a signature acknowledges receipt of this document or in lieu of a signature an email notification will be attached.

TCFP-043	
4/3/2013	R4

Appendix D

Sample Fire Science Advisory Committee Minutes

Advisory Committee Meeting Minutes

CHAIRPERSON: Dick Price		
MEETING DATE: Tuesday April,30th, 2019	**MEETING TIME:** 10:00 am	**MEETING PLACE:** Public Safety Training Center, McKinney Room 101
RECORDER: Katie Rouse		**PREVIOUS MEETING:** 11/13/2018

MEMBERS PRESENT: (**Y**es/**N**o)   **OTHERS PRESENT:**

	Name and Title		Name and Title		Name and Title
Y	Dick Price Former Fire Chief Fairview FD (Consultant)	Y	Stuart Blasingame Fire Chief Prosper FD	Y	Marc Pate Deputy Chief, Training Plano FD
Y	Pat McAuliff Director of Fire Science Collin College	Y	Harold Watkins Fire Chief Melissa FD	Y	Bonnie Bowers Captain Blue Ridge VFD
Y	Jonathan Boyd Fire Chief	N	Danny Kistner Fire Chief	Y	Tim Mock Director of EMS

	Allen Fire Department		McKinney FD		Collin College
N	Randy Howell Fire Chief University Park FD	Y	Alex Simmons Captain Plano FD	N	David Yarbrough Lieutenant /Former Student Prosper FD
N	Mark Piland Fire Chief Frisco FD	N	Mark Metdker Fire Chief Celina FD	Y	Austin Robinette Class 73 Graduate
Y	Michelle Millen Dean, Health Sciences Collin College	N	Jon Hardesty Vice President/Provost Collin College	Y	Nancy Donaldson Fire Training Coordinator Collin College
Y	Scott Kerr Fire Academy Training Coordinator Collin College	Y	George Malone Fire Trainer Collin College	Y	George Cook Battalion Chief McKinney FD
Y	Kyle Mills Deputy Chief Frisco FD	Y	Cameron Kraemer Assistant Fire Chief Frisco FD		

Agenda Item	Action
	Discussion
	Information
Old Business:	**Welcome & Introductions**
	Approval of Minutes
Continuing Business	**Program Update**
	a. State Exam Pass Rates
	b. Fire Academy Class #74 Graduation
	c. Fall 2019 Schedule
	d. Facility Update
	e. FY 2019- 20 Budget
	f. Staffing Update
	g. Driving Simulator
New Business:	a. **Fire Officer Program Review and Changes**
	b. **SFFMA Volunteer Firefighter classes**
	c. **Excellence Fund**
	d. **Increased Course Fees**
	e. **TCFP Report**
	i. Fire Inspector
	ii. Basic Firefighter / Haz-Mat

Other:	

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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MINUTES

Key Discussion Points	Discussion
Old Business:	**Approval of Minutes** Dick Price moved to approve the minutes. Harold Watkins seconded. Motion carried.
Continuing Business:	**State Certification Exam Pass Rates** The pass rates are good. Especially proud of our 100% pass rate for Driver / Operator.
	Fire Academy Class #74 Graduation Chief McAuliff announced the date for Class 74 Graduation, May 13th, at 6:30 pm in Plano, at John Anthony Theater.
	Fall 2019 Schedule We will continue to offer classes for credit and continuing education. The way to tell if a class is continuing education is if the second number in the class is zero. If a class says "Linked" that means that the class is offered as either credit or continuing education, exact same class, different way of receiving credit. New class offered Rope Rescue II. Plans Examiner is now a standalone course, Fire Inspector I & II must be completed before in order to take Plans Examiner. Fire Inspector I & II is now known as Basic Fire Inspector.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

	Facility Update
	Scott Kerr gave an update on the facility, stable system, replaced one smoke machine, residential building is solid except the 5th floor needs more work (ceiling fire). The flashover chamber has been an ongoing issue; this particular flashover chamber is only one of two in America. The flashover chamber catches smoke but it burns an excessive amount of gas, the temperature is 1500 degrees.
	FY 2019-20 Budget
	We're looking at annually buying new SCBA units, close to half failed inspection this year. Kyle Mills asked what the air-pak model is, it is possible the SCBA units may be at fault, because the same issue has occurred in the Frisco Fire Department. Cameron Kraemer questioned who does our inspections, Hoyt does their department as well, and perhaps it is company error? We are looking to lease a Quint, meeting with the company on May 1st, 2019 to discuss. The letter that was mentioned last meeting to be sent to Provost/Vice President Jon Hardesty will start to be worked on and sent to Dean Michelle Millen first. The concern with our current apparatus is that it is not up to date; our students are not being trained on what they would be working with when hired on in Fire Departments. Fire Departments need new hires to already know the apparatus that they should be dealing with, not an old model. The Radio System also needs to be upgraded, with the square footage of the facility there is not proper coverage. Tim Mock had called a May Day twice, Scott Kerr was just outside and the radio did not pick up the call. The radios we have had for 15 years, they are short range and not certified. McKinney Fire Department may be able to help us with the radios. We have hired 12 Skills Instructors and are looking to hire more next budget year.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

	Staffing Update Chief McAuliff introduced Shontel Pearson our District College and Career Counselor, she will actively recruit students for the Academy at local schools, take payment and register students. Scott Kerr is now full time as the Fire Academy Coordinator. The Full Time Faculty position that Vance McCauley had is open.
	Driving Simulator Richardson Fire Department donated their Driving Simulator to us after it was tuned up.
New Business	**AAS Degree Program Revision** Fire Officer AAS has had problems with getting completers. A degree should be finished within five years. The goal is to reconfigure the program, Collin College is accepting more non-traditional credit, Chief McAuliff said that if we can tie experience to the curriculum then firefighters should be able to receive credit for their experience out in the field. The program that Chief McAuliff presented was well received. Academy graduate Austin Robinette suggested the curriculum outline be presented to the Academy, the degree plan is known but not emphasized. Cameron Kraemer suggested marketing to your crowd, in essence high schoolers and your older firefighters. Advertise to the firefighter schedule. Dick Price set motion to support the AAS Degree Program, Tim Mock motioned and George Cook seconded. Motion carried.
	SSFMA Volunteer Firefighter Classes SSFMA Volunteer firefighter classes will follow introductory of firefighter, six courses, will kick off at the Public Safety Training Center in June 2019.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

	Excellence Fund Funds are drained; too much training, rather not enough money to begin with was put into the excellence fund when the Public Safety Training Center opened. The next request will be $100,000 to be put in the fund for next budget year.
	Increased Course Fees Course cost is anticipated to go up, about 12%.
	TCFP Report Basic Firefighter needs to include critical incident suicide management (CISM), cancer awareness and a bill to train with dealing with critical incident stress. It is Chief McAuliff's opinion that the training for this should be tailored to Fire and EMS, Police need this training as well but the way each department approaches an emergency is different. Haz-Mat is presenting new material NFPA 1072 instead of the guidelines of 472. Chief McAuliff questioned should Haz-Mat be separate from the Academy? If it is separate then the state exam failure rate would go down for Academy students.
Other	Next meeting will be Fall 2019. Motion to adjourn, motion carried, meeting ended at 12:00 PM. Lunch was provided.

_____   _____

Chair Signature   Date

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Appendix E

Grade Distribution 2016-2020

FIRS and FIRT Grade Distribution 2016-2020

CHEM1405 — *Introduction to Chemistry I*

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	650	181	175	131	44	0	66	53	28%	27%	20%	7%	0%	10%	8%	92%	75%	2.39
2017	679	173	192	143	49	0	54	68	25%	28%	21%	7%	0%	8%	10%	90%	75%	2.36
2018	689	194	181	133	58	0	57	66	28%	26%	19%	8%	0%	8%	10%	90%	74%	2.38
2019	710	202	202	144	47	0	52	63	28%	28%	20%	7%	0%	7%	9%	91%	77%	2.46
2020	715	233	217	114	35	0	52	64	33%	30%	16%	5%	0%	7%	9%	91%	79%	2.58
Averages									29%	28%	19%	7%	0%	8%	9%	91%	76%	-

EMSP1371 — *Intro to EMT*

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	176	42	98	31	4	0	0	1	24%	56%	18%	2%	0%	0%	1%	99%	97%	3.00
2017	201	92	78	29	0	0	1	1	46%	39%	14%	0%	0%	0%	0%	100%	99%	3.28
2018	205	124	70	10	0	0	1	0	60%	34%	5%	0%	0%	0%	0%	100%	100%	3.54
2019	243	136	90	14	0	0	1	2	56%	37%	6%	0%	0%	0%	1%	99%	99%	3.47
2020	296	153	111	25	1	0	3	3	52%	38%	8%	0%	0%	1%	1%	99%	98%	3.36
Averages									49%	40%	10%	0%	0%	1%	1%	99%	98%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

EMSP1160 — Clinical-(EMT Paramedic)-Basic

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	159	99	43	8	0	0	9	0	62%	27%	5%	0%	0%	6%	0%	100%	94%	3.40
2017	184	120	43	11	0	0	9	1	65%	23%	6%	0%	0%	5%	1%	99%	95%	3.43
2018	192	132	47	10	0	0	3	0	69%	24%	5%	0%	0%	2%	0%	100%	98%	3.59
2019	211	136	49	10	0	0	14	2	64%	23%	5%	0%	0%	7%	1%	99%	92%	3.37
2020	131	121	1	0	0	0	7	2	92%	1%	0%	0%	0%	5%	2%	98%	93%	3.72
Averages									69%	21%	4%	0%	0%	5%	1%	99%	95%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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FIRS1313 — Firefighter Certification III

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	61	33	25	2	0	0	1	0	54%	41%	3%	0%	0%	2%	0%	100%	98%	3.46
2017	75	34	37	2	0	0	1	1	45%	49%	3%	0%	0%	1%	1%	99%	97%	3.35
2018	69	37	31	1	0	0	0	0	54%	45%	1%	0%	0%	0%	0%	100%	100%	3.52
2019	74	52	17	1	0	0	1	3	70%	23%	1%	0%	0%	1%	4%	96%	95%	3.53
2020	75	42	32	0	0	0	0	1	56%	43%	0%	0%	0%	0%	1%	99%	99%	3.52
Averages									56%	40%	2%	0%	0%	1%	1%	99%	98%	-

FIRS1301 — Firefighter Certification I

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	61	33	25	2	0	0	1	0	54%	41%	3%	0%	0%	2%	0%	100%	98%	3.46
2017	75	34	37	2	0	0	1	1	45%	49%	3%	0%	0%	1%	1%	99%	97%	3.35
2018	69	37	31	1	0	0	0	0	54%	45%	1%	0%	0%	0%	0%	100%	100%	3.52
2019	74	52	17	1	0	0	1	3	70%	23%	1%	0%	0%	1%	4%	96%	95%	3.53
2020	75	42	32	0	0	0	0	1	56%	43%	0%	0%	0%	0%	1%	99%	99%	3.52
Averages									56%	40%	2%	0%	0%	1%	1%	99%	98%	-

EMSP1501 — Emergency Medical Technician

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	165	41	109	6	1	0	3	5	25%	66%	4%	1%	0%	2%	3%	97%	95%	3.05
2017	197	59	125	13	0	0	0	0	30%	63%	7%	0%	0%	0%	0%	100%	100%	3.23
2018	204	78	119	4	1	0	1	1	38%	58%	2%	0%	0%	0%	0%	100%	99%	3.32
2019	237	74	138	15	1	0	1	8	31%	58%	6%	0%	0%	0%	3%	97%	96%	3.13
2020	285	82	168	20	0	0	8	7	29%	59%	7%	0%	0%	3%	2%	98%	95%	3.06
Averages									31%	61%	5%	0%	0%	1%	2%	98%	97%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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FIRS1319 — Firefighter Certification IV

Academic Year	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
		Grade Assigned							Grade Distribution									
2016	61	33	25	2	0	0	1	0	54%	41%	3%	0%	0%	2%	0%	100%	98%	3.46
2017	75	34	37	2	0	0	1	1	45%	49%	3%	0%	0%	1%	1%	99%	97%	3.35
2018	69	37	31	1	0	0	0	0	54%	45%	1%	0%	0%	0%	0%	100%	100%	3.52
2019	74	52	17	1	0	0	1	3	70%	23%	1%	0%	0%	1%	4%	96%	95%	3.53
2020	75	42	32	0	0	0	0	1	56%	43%	0%	0%	0%	0%	1%	99%	99%	3.52
Averages									56%	40%	2%	0%	0%	1%	1%	99%	98%	-

FIRS1323 — Firefighter Certification V

Academic Year	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
		Grade Assigned							Grade Distribution									
2016	58	32	26	0	0	0	0	0	55%	45%	0%	0%	0%	0%	0%	100%	100%	3.55
2017	73	35	34	2	0	0	1	1	48%	47%	3%	0%	0%	1%	1%	99%	97%	3.37
2018	68	34	32	2	0	0	0	0	50%	47%	3%	0%	0%	0%	0%	100%	100%	3.47
2019	70	48	21	1	0	0	0	0	69%	30%	1%	0%	0%	0%	0%	100%	100%	3.67
2020	72	43	28	0	0	0	0	1	60%	39%	0%	0%	0%	0%	1%	99%	99%	3.56
Averages									56%	41%	1%	0%	0%	0%	1%	99%	99%	-

FIRS1329 — Firefighter Certification VI

Academic Year	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
		Grade Assigned							Grade Distribution									
2016	58	31	27	0	0	0	0	0	53%	47%	0%	0%	0%	0%	0%	100%	100%	3.53
2017	73	35	34	2	0	0	1	1	48%	47%	3%	0%	0%	1%	1%	99%	97%	3.37
2018	68	35	31	2	0	0	0	0	51%	46%	3%	0%	0%	0%	0%	100%	100%	3.49
2019	70	48	21	1	0	0	0	0	69%	30%	1%	0%	0%	0%	0%	100%	100%	3.67
2020	72	43	28	0	0	0	0	1	60%	39%	0%	0%	0%	0%	1%	99%	99%	3.56
Averages									56%	41%	1%	0%	0%	0%	1%	99%	99%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

FIRS1407 — Firefighter Certification II

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	61	33	25	2	0	0	1	0	54%	41%	3%	0%	0%	2%	0%	100%	98%	3.46
2017	75	34	37	2	0	0	1	1	45%	49%	3%	0%	0%	1%	1%	99%	97%	3.35
2018	69	38	30	1	0	0	0	0	55%	43%	1%	0%	0%	0%	0%	100%	100%	3.54
2019	74	52	17	1	0	0	1	3	70%	23%	1%	0%	0%	1%	4%	96%	95%	3.53
2020	75	42	32	0	0	0	0	1	56%	43%	0%	0%	0%	0%	1%	99%	99%	3.52
Averages									56%	40%	2%	0%	0%	1%	1%	99%	98%	-

FIRS1433 — Firefighter Certification VII

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	58	32	26	0	0	0	0	0	55%	45%	0%	0%	0%	0%	0%	100%	100%	3.55
2017	73	35	34	2	0	0	1	1	48%	47%	3%	0%	0%	1%	1%	99%	97%	3.37
2018	68	35	31	2	0	0	0	0	51%	46%	3%	0%	0%	0%	0%	100%	100%	3.49
2019	70	48	21	1	0	0	0	0	69%	30%	1%	0%	0%	0%	0%	100%	100%	3.67
2020	72	42	29	0	0	0	0	1	58%	40%	0%	0%	0%	0%	1%	99%	99%	3.54
Averages									56%	41%	1%	0%	0%	0%	1%	99%	99%	-

FIRT1301 — Fundamental of Fire Protection

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	24	4	4	5	2	0	7	2	17%	17%	21%	8%	0%	29%	8%	92%	54%	1.67
2017	23	16	4	0	0	0	3	0	70%	17%	0%	0%	0%	13%	0%	100%	87%	3.30
2018	17	8	2	3	0	0	3	1	47%	12%	18%	0%	0%	18%	6%	94%	77%	2.59
2019	19	11	4	1	0	0	2	1	58%	21%	5%	0%	0%	11%	5%	95%	84%	3.05
2020	21	13	3	2	0	0	3	0	62%	14%	10%	0%	0%	14%	0%	100%	86%	3.10
Averages									50%	16%	11%	2%	0%	17%	4%	96%	77%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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FIRT1315 — Hazardous Materials I

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	22	14	1	3	1	0	3	0	64%	5%	14%	5%	0%	14%	0%	100%	82%	3.00
2017	25	18	1	1	0	0	3	2	72%	4%	4%	0%	0%	12%	8%	92%	80%	3.08
2018	18	13	2	0	0	0	2	1	72%	11%	0%	0%	0%	11%	6%	94%	83%	3.22
2019	16	10	2	3	0	0	0	1	63%	13%	19%	0%	0%	0%	6%	94%	94%	3.25
2020	13	5	3	3	0	0	0	2	38%	23%	23%	0%	0%	0%	15%	85%	85%	2.69
Averages									64%	10%	11%	1%	0%	9%	6%	94%	84%	-

FIRT1327 — Build Construction in Fire Srv

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	17	7	9	1	0	0	0	0	41%	53%	6%	0%	0%	0%	0%	100%	100%	3.35
2017	21	14	7	0	0	0	0	0	67%	33%	0%	0%	0%	0%	0%	100%	100%	3.67
2018	16	11	5	0	0	0	0	0	69%	31%	0%	0%	0%	0%	0%	100%	100%	3.69
2019	15	7	8	0	0	0	0	0	47%	53%	0%	0%	0%	0%	0%	100%	100%	3.47
2020	12	8	4	0	0	0	0	0	67%	33%	0%	0%	0%	0%	0%	100%	100%	3.67
Averages									58%	41%	1%	0%	0%	0%	0%	100%	100%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

FIRT1338 — Fire Protection Systems

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	12	11	0	0	0	0	1	0	92%	0%	0%	0%	0%	8%	0%	100%	92%	3.67
2017	11	11	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2018	10	7	2	0	0	0	1	0	70%	20%	0%	0%	0%	10%	0%	100%	90%	3.40
2019	11	4	6	1	0	0	0	0	36%	55%	9%	0%	0%	0%	0%	100%	100%	3.27
2020	10	6	4	0	0	0	0	0	60%	40%	0%	0%	0%	0%	0%	100%	100%	3.60
Averages									72%	22%	2%	0%	0%	4%	0%	100%	96%	-

CHEM1405 — Introduction to Chemistry I

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	650	181	175	131	44	0	66	53	28%	27%	20%	7%	0%	10%	8%	92%	75%	2.39
2017	679	173	192	143	49	0	54	68	25%	28%	21%	7%	0%	8%	10%	90%	75%	2.36
2018	689	194	181	133	58	0	57	66	28%	26%	19%	8%	0%	8%	10%	90%	74%	2.38
2019	710	202	202	144	47	0	52	63	28%	28%	20%	7%	0%	7%	9%	91%	77%	2.46
2020	715	233	217	114	35	0	52	64	33%	30%	16%	5%	0%	7%	9%	91%	79%	2.58
Averages									29%	28%	19%	7%	0%	8%	9%	91%	76%	-

ENGL2311 — Technical and Business Writing

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	472	299	79	23	8	0	38	25	63%	17%	5%	2%	0%	8%	5%	95%	85%	3.15
2017	481	320	78	23	9	0	24	27	67%	16%	5%	2%	0%	5%	6%	94%	88%	3.26
2018	657	353	135	65	13	0	55	36	54%	21%	10%	2%	0%	8%	5%	95%	84%	2.98
2019	769	425	143	58	15	0	67	61	55%	19%	8%	2%	0%	9%	8%	92%	81%	2.94
2020	863	454	145	69	27	0	82	84	53%	17%	8%	3%	0%	10%	10%	90%	77%	2.81
Averages									57%	18%	7%	2%	0%	8%	7%	93%	82%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

FIRT1315 — Hazardous Materials I

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	22	14	1	3	1	0	3	0	64%	5%	14%	5%	0%	14%	0%	100%	82%	3.00
2017	25	18	1	1	0	0	3	2	72%	4%	4%	0%	0%	12%	8%	92%	80%	3.08
2018	18	13	2	0	0	0	2	1	72%	11%	0%	0%	0%	11%	6%	94%	83%	3.22
2019	16	10	2	3	0	0	0	1	63%	13%	19%	0%	0%	0%	6%	94%	94%	3.25
2020	13	5	3	3	0	0	0	2	38%	23%	23%	0%	0%	0%	15%	85%	85%	2.69
Averages									64%	10%	11%	1%	0%	9%	6%	94%	84%	-

FIRT1327 — Build Construction in Fire Srv

Academic Year	Enrollment	Grade Assigned A	B	C	D	P	F	W	Grade Distribution A	B	C	D	P	F	W	Completion Rate	Success Rate*	Course GPA**
2016	17	7	9	1	0	0	0	0	41%	53%	6%	0%	0%	0%	0%	100%	100%	3.35
2017	21	14	7	0	0	0	0	0	67%	33%	0%	0%	0%	0%	0%	100%	100%	3.67
2018	16	11	5	0	0	0	0	0	69%	31%	0%	0%	0%	0%	0%	100%	100%	3.69
2019	15	7	8	0	0	0	0	0	47%	53%	0%	0%	0%	0%	0%	100%	100%	3.47
2020	12	8	4	0	0	0	0	0	67%	33%	0%	0%	0%	0%	0%	100%	100%	3.67
Averages									58%	41%	1%	0%	0%	0%	0%	100%	100%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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FIRT1338 — Fire Protection Systems

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	12	11	0	0	0	0	1	0	92%	0%	0%	0%	0%	8%	0%	100%	92%	3.67
2017	11	11	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2018	10	7	2	0	0	0	1	0	70%	20%	0%	0%	0%	10%	0%	100%	90%	3.40
2019	11	4	6	1	0	0	0	0	36%	55%	9%	0%	0%	0%	0%	100%	100%	3.27
2020	10	6	4	0	0	0	0	0	60%	40%	0%	0%	0%	0%	0%	100%	100%	3.60
Averages									72%	22%	2%	0%	0%	4%	0%	100%	96%	-

FIRT1349 — Fire Administration II

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	5	3	1	0	0	0	1	0	60%	20%	0%	0%	0%	20%	0%	100%	80%	3.00
2017	8	5	3	0	0	0	0	0	63%	38%	0%	0%	0%	0%	0%	100%	100%	3.63
2018	5	5	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	7	6	1	0	0	0	0	0	86%	14%	0%	0%	0%	0%	0%	100%	100%	3.86
Averages									76%	20%	0%	0%	0%	4%	0%	100%	96%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

FIRT1442 — Fire Officer I

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	37	35	0	0	0	0	2	0	95%	0%	0%	0%	0%	5%	0%	100%	95%	3.78
2017	23	22	0	0	0	0	1	0	96%	0%	0%	0%	0%	4%	0%	100%	96%	3.83
2018	23	20	1	1	0	0	0	1	87%	4%	4%	0%	0%	0%	4%	96%	96%	3.70
2019	23	20	3	0	0	0	0	0	87%	13%	0%	0%	0%	0%	0%	100%	100%	3.87
2020	18	18	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
Averages									93%	3%	1%	0%	0%	2%	1%	99%	97%	-

FIRT1443 — Fire Officer II

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	24	23	1	0	0	0	0	0	96%	4%	0%	0%	0%	0%	0%	100%	100%	3.96
2017	21	20	1	0	0	0	0	0	95%	5%	0%	0%	0%	0%	0%	100%	100%	3.95
2018	12	12	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2019	19	18	1	0	0	0	0	0	95%	5%	0%	0%	0%	0%	0%	100%	100%	3.95
2020	17	16	1	0	0	0	0	0	94%	6%	0%	0%	0%	0%	0%	100%	100%	3.94
Averages									96%	4%	0%	0%	0%	0%	0%	100%	100%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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FIRT2305 — Fire Instructor I

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	34	34	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2017	22	21	0	0	0	0	0	1	95%	0%	0%	0%	0%	0%	5%	95%	96%	3.82
2018	17	17	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2019	20	17	1	0	0	0	2	0	85%	5%	0%	0%	0%	10%	0%	100%	90%	3.55
2020	20	19	0	0	0	0	1	0	95%	0%	0%	0%	0%	5%	0%	100%	95%	3.80
Averages									96%	1%	0%	0%	0%	3%	1%	99%	96%	-

FIRT2307 — Fire Instructor II

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	29	26	0	0	0	0	1	2	90%	0%	0%	0%	0%	3%	7%	93%	90%	3.59
2017	22	22	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2018	15	15	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2019	20	18	2	0	0	0	0	0	90%	10%	0%	0%	0%	0%	0%	100%	100%	3.90
2020	11	10	0	0	0	0	1	0	91%	0%	0%	0%	0%	9%	0%	100%	91%	3.64
Averages									94%	2%	0%	0%	0%	2%	2%	98%	96%	-

FIRT2309 — Firefighting Strateg & Tact I

Academic Year	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA**
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
2016	15	15	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
2017	9	8	0	0	0	0	1	0	89%	0%	0%	0%	0%	11%	0%	100%	89%	3.56
2018	8	6	2	0	0	0	0	0	75%	25%	0%	0%	0%	0%	0%	100%	100%	3.75
2019	8	7	1	0	0	0	0	0	88%	13%	0%	0%	0%	0%	0%	100%	100%	3.88
2020	6	6	0	0	0	0	0	0	100%	0%	0%	0%	0%	0%	0%	100%	100%	4.00
Averages									91%	7%	0%	0%	0%	2%	0%	100%	98%	-

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Appendix F

Previous Continuous Improvement Plans (CIP)

Fire Officer 2016-17 CIP

Date 2016-17 _____   **Name of Administrative or Educational t Unit:** __Fire Science_____ _____

Contact name: Pat McAuliff_____   **Contact email**: PMcAuliff@collin.edu   _____   **Contact phone:** X 6837   __**Office Location:** CPC A-206

Mission:

The firefighter with a well-balanced educational background will be better prepared to serve and protect the community. Collin's Fire Science program is designed to give current and future Fire Officers the certifications and experience necessary for effective decision-making and leadership skills in the fire department. Students acquire the technical knowledge needed to combat the fire problems created by modern living and develop leadership skills required of the fire Officer. The program meets the requirements of the Texas Commission on Fire Protection (TCFP). Students certified in Texas as a Basic Firefighter are eligible to take the State Certification Exams for Fire Instructor I, Il and Fire Officer I, II after successfully completing selected courses in the Fire Officer Certificate program

PART I: **Might not change from year to year**

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.
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COLLIN
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A. Outcomes(s) Results expected in this department/program	B. Measure(s) The instrument or process used to measure results	C. Target(s) The level of success expected
1. 4.5.2 Administer oral, written, and performance tests, given the lesson plan, evaluation instruments, and the evaluation procedures of the agency, so that bias or discrimination is eliminated, the testing is conducted according to procedures and the security of the materials is maintained.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor I level	92 % of class successfully pass exam with a minimum overall 70% score
2. 4.2.2 Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor I	92 % of class successfully pass exam with a minimum overall 70% score
3. 4.2.3 Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor I	92 % of class successfully pass exam with a minimum overall 70% score
4. 5.2.3 Formulate budget needs, given training goals, agency budget policy, and current resources, so that the resources required to meet training goals are identified and documented.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor II	92 % of class successfully pass exam with a minimum overall 70% score

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

PART II: For academic year 2016-17

From Part I

A. Outcomes(s)	D. Action Plan Years 5 & 2	E. Implement Action Plan Years 1 & 3	F. Data Results Summary Years 2 & 4	G. Findings Years 2 & 4
Results expected in this department/program	Based on analysis of previous assessment, create an action plan and include it here in the row of the outcomes(s) it addresses.	Implement the action plan and collect data	Summarize the data collected	What does data say about outcome?
1. Administer oral, written, and performance tests, given the lesson plan, evaluation instruments, and the evaluation procedures of the agency, so that bias or discrimination is eliminated, the testing is conducted according to procedures and the security of the materials is maintained.	Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	Implement the action plan and collect data	2016: results averaged 65%	2016: Standard not met
2. Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained.	Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	Implement the action plan and collect data	2016: results averaged 57.29%	2016 Standard not met
3. Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented. Apply safety regulations at the unit level, given safety policies and procedures, so that required reports are completed, in-service training is conducted, and member responsibilities are conveyed.	Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	Implement the action plan and collect data	2016: result averaged 52.08	2016 Standard not met
4. Formulate budget needs, given training goals, agency budget policy, and current resources, so that the resources required to meet training goals are identified and documented.	Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	Implement the action plan and collect data	2016: results – 61.9%	2016 Standard not met

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

A. Outcomes(s)	D. Action Plan Years 5 & 2	E. Implement Action Plan Years 1 & 3	F. Data Results Summary Years 2 & 4	G. Findings Years 2 & 4
Results expected in this department/program	Based on analysis of previous assessment, create an action plan and include it here in the row of the outcomes(s) it addresses.	Implement the action plan and collect data	Summarize the data collected	What does data say about outcome?

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Fire Officer 2017-18 CIP

Continuous Improvement Plan

Outcomes might not change from year to year. For example, if you have not met previous targets, you may wish to retain the same outcomes. *If this is an academic, workforce, or continuing education program, you must have at least one student learning outcome*. You may also add short-term administrative, technological, assessment, resource or professional development goals, as needed.

Date: 2017 -18   **Name of Program/Unit: Fire Science**

Contact name: Pat McAuliff   **Contact email:**   pmcauliff@collin.edu   **Contact phone:**   6837

Table 1: CIP Outcomes, Measures & Targets Table (focus on at least one for the next two years)

A. Expected Outcome(s) Results expected in this unit (e.g. Authorization requests will be completed more quickly; Increase client satisfaction with our services)	B. Measure(s) Instrument(s)/process(es) used to measure results (e.g. survey results, exam questions, etc.)	C. Target(s) Level of success expected (e.g. 80% approval rating, 10 day faster request turn-around time, etc.)
1. 4.5.2 Administer oral, written, and performance tests, given the lesson plan, evaluation instruments, and the evaluation procedures of the agency, so that bias or discrimination is eliminated, the testing is conducted according to procedures and the security of the materials is maintained.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor I	92 % of class successfully pass exam with a minimum overall 70% score
2. 4.2.2 Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor II	92 % of class successfully pass exam with a minimum overall 70% score

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

3. 4.2.3 Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor II	92 % of class successfully pass exam with a minimum overall 70% score
4. 5.2.3 Formulate budget needs, given training goals, agency budget policy, and current resources, so that the resources required to meet training goals are identified	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor II	92 % of class successfully pass exam with a minimum overall 70% score

Description of Fields in the Following CIP Tables:
A. Outcome(s) - Results expected in this program (e.g. Students will learn how to compare/contrast conflict and structural functional theories; increase student retention in Nursing Program).
B. Measure(s) - Instrument(s)/process(es) used to measure results
(e.g. results of surveys, test item questions 6 & 7 from final exam, end of term retention rates, etc.)
C. Target(s) - Degree of success expected (e.g. 80% approval rating, 25 graduates per year, increase retention by 2% etc.).
D. Action Plan - Based on analysis, identify actions to be taken to accomplish outcome. What will you do?
E. Results Summary - Summarize the information and data collected in year 1.
F. Findings - Explain how the information and data has impacted the expected outcome and program success.
G. Implementation of Findings – Describe how you have used or will use your findings and analysis of the data to make improvements.
Table 2. CIP Outcomes 1 & 2 (FOCUS ON AT LEAST 1)

H. **Outcome #1** 4.5.2 Administer oral, written, and performance tests, given the lesson plan, evaluation instruments, and the evaluation procedures of the agency, so that bias or discrimination is eliminated, the testing is conducted according to procedures and the security of the materials is maintained.	
I. **Measure (Outcome #1)** Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor I	J. **Target (Outcome #1)** 92 % of class successfully pass exam with a minimum overall 70% score
K. **Action Plan (Outcome #1)** Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	
L. **Results Summary (Outcome #1)** 2017: Results 48.33, 74.29; avg.61.31	

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.
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M. Findings (Outcome #1)
The state exam results for this learning outcome did not meet the standard.

N. Implementation of Findings
We will continue to increase the number of questions on the course quizzes and final exam in this area in an effort to meet/exceed the 70% overall average.

A. Outcome #2 4.2.2 Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained.

B. Measure (Outcome #2)	**C. Target (Outcome #2)**
Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Instructor II	92 % of class successfully pass exam with a minimum overall 70% score

D. Action Plan (Outcome #2)
Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.

E. Results Summary (Outcome #2)
2017: Results 84.44, 77.14; avg.80.79

F. Findings (Outcome #1)
The state exam results for this learning outcome met the standard.

G. Implementation of Findings
We will not decrease the number of questions on the course quizzes and final exam specific to this student learning outcome. We will monitor future exam results for this learning objective category.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Fire Officer 2018-19 CIP

Continuous Improvement Plan

Outcomes might not change from year to year. For example, if you have not met previous targets, you may wish to retain the same outcomes. *If this is an academic, workforce, or continuing education program, you must have at least one student learning outcome*. You may also add short-term administrative, technological, assessment, resource or professional development goals, as needed.

Date: 2018-19   **Name of Program/Unit: Fire Science**

Contact name: Pat McAuliff   **Contact email:**   pmcauliff@collin.edu   **Contact phone:**   6837

Table 1: CIP Outcomes, Measures & Targets Table (focus on at least one for the next two years)

A. Expected Outcome(s) Results expected in this unit (e.g. Authorization requests will be completed more quickly; Increase client satisfaction with our services)	B. Measure(s) Instrument(s)/process(es) used to measure results (e.g. survey results, exam questions, etc.)	C. Target(s) Level of success expected (e.g. 80% approval rating, 10 day faster request turn-around time, etc.)
1. 4.4.1 Recommend changes to existing departmental policies and/or implementation of departmental policy at a level, given a new departmental policy, so that the policy is communicated to and understood by unit members.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Officer I	minimum overall 70% score

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

2. 5.4.3 Describe the process of purchasing, including soliciting and awards bids, given the established specifications, in order to ensure competitive bidding so that needs of the organization are met within the applicable federal. State/provincial, and local always and regulations.	Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Officer II	minimum overall 70% score

Description of Fields in the Following CIP Tables:
A. Outcome(s) - Results expected in this program (e.g. Students will learn how to compare/contrast conflict and structural functional theories; increase student retention in Nursing Program).
B. Measure(s) - Instrument(s)/process(es) used to measure results
(e.g. results of surveys, test item questions 6 & 7 from final exam, end of term retention rates, etc.)
C. Target(s) - Degree of success expected (e.g. 80% approval rating, 25 graduates per year, increase retention by 2% etc.).
D. Action Plan - Based on analysis, identify actions to be taken to accomplish outcome. What will you do?
E. Results Summary - Summarize the information and data collected in year 1.
F. Findings - Explain how the information and data has impacted the expected outcome and program success.
G. Implementation of Findings – Describe how you have used or will use your findings and analysis of the data to make improvements.

Table 2. CIP Outcomes 1 & 2 (FOCUS ON AT LEAST 1)

O. Outcome #1 4.4.1 Recommend changes to existing departmental policies and/or implementation of departmental policy at a level, given a new departmental policy, so that the policy is communicated to and understood by unit members	
P. Measure (Outcome #1) Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Officer I	**Q. Target (Outcome #1)** 70% score or better in this subject area.
R. Action Plan (Outcome #1) Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

S. Results Summary (Outcome #1)
2018-19: Results 16.67, 55.56 - avg.36.11

T. Findings (Outcome #1)
The state exam results for this learning outcome did not meet the standard.

U. Implementation of Findings
Include additional questions regarding this topic on course quizzes and final exam and monitor results.

H. Outcome #2 5.4.3 Describe the process of purchasing, including soliciting and awards bids, given the established specifications, in order to ensure competitive bidding so that needs of the organization are met within the applicable federal. State/provincial, and local always and regulations.

I. Measure (Outcome #2)	**J. Target (Outcome #2)**
Texas Commission on Fire Protection Basic Firefighter Certification Exam – Fire Officer II	70% score or better in this subject area.

K. Action Plan (Outcome #2)
Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.

L. Results Summary (Outcome #2)
2018-19: Results 25.86, 37.5 - avg.31.68

M. Findings (Outcome #1)
The state exam results for this learning outcome did not meet the standard.

N. Implementation of Findings
Include additional questions regarding this topic on course quizzes and final exam and monitor results.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Fire Officer 2019-20 CIP

Continuous Improvement Plan

Outcomes might not change from year to year. For example, if you have not met previous targets, you may wish to retain the same outcomes. *If this is an academic, workforce, or continuing education program, you must have at least one student learning outcome.* **You may also add short-term administrative, technological, assessment, resource or professional development goals, as needed.**

Date: 2019-20   **Name of Program/Unit:**   **Fire Science**

Contact name: Pat McAuliff   **Contact email:**   pmcauliff@collin.edu   **Contact phone:**   6837

Table 1: CIP Outcomes, Measures & Targets Table (focus on at least one for the next two years)

A. Expected Outcome(s) Results expected in this unit (e.g. Authorization requests will be completed more quickly; Increase client satisfaction with our services)	B. Measure(s) Instrument(s)/process(es) used to measure results (e.g. survey results, exam questions, etc.)	C. Target(s) Level of success expected (e.g. 80% approval rating, 10 day faster request turn-around time, etc.)
1. 4.4.1 Recommend changes to existing departmental policies and/or implementation of departmental policy at a level, given a new departmental policy, so that the policy is communicated to and understood by unit members.	Certification Exam – Fire Officer I	minimum overall 70% score
2. 5.4.3 Describe the process of purchasing, including soliciting and awards bids, given the established specifications, in order to ensure competitive bidding so that needs of the organization are met within the applicable federal. State/provincial, and local always and regulations.	Certification Exam – Fire Officer II	minimum overall 70% score

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Description of Fields in the Following CIP Tables:
A. Outcome(s) - Results expected in this program (e.g. Students will learn how to compare/contrast conflict and structural functional theories; increase student retention in Nursing Program).
B. Measure(s) - Instrument(s)/process(es) used to measure results
(e.g. results of surveys, test item questions 6 & 7 from final exam, end of term retention rates, etc.)
C. Target(s) - Degree of success expected (e.g. 80% approval rating, 25 graduates per year, increase retention by 2% etc.).
D. Action Plan - Based on analysis, identify actions to be taken to accomplish outcome. What will you do?
E. Results Summary - Summarize the information and data collected in year 1.
F. Findings - Explain how the information and data has impacted the expected outcome and program success.
G. Implementation of Findings – Describe how you have used or will use your findings and analysis of the data to make improvements.
Table 2. CIP Outcomes 1 & 2 (FOCUS ON AT LEAST 1)

V. Outcome #1 1. 4.4.1 Recommend changes to existing departmental policies and/or implementation of departmental policy at a level, given a new departmental policy, so that the policy is communicated to and understood by unit members.	
W. Measure (Outcome #1) Certification Exam Fire Officer I	**X. Target (Outcome #1)** **70% score or better in this subject area**
Y. Action Plan (Outcome #1) Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	
Z. Results Summary (Outcome #1) 2019-20 Results 91.9%, 89.93%, - avg.90.91	
AA. Findings (Outcome #1) The state exam results for this learning outcome met the standard.	
BB. Implementation of Findings Implementation of the action plan produced the desired result.	

O. **Outcome #2** 5.4.3 Describe the process of purchasing, including soliciting and awards bids, given the established specifications, in order to ensure competitive bidding so that needs of the organization are met within the applicable federal. State/provincial, and local always and regulations.

P. **Measure (Outcome #2)**	Q. **Target (Outcome #2)**
Certification Exam Fire Officer II	70% score or better in this subject area.

R. **Action Plan (Outcome #2)**
Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.

S. **Results Summary (Outcome #2)**
2019-20: Results 26.09%, 20.83% - avg. 23.46%

T. **Findings (Outcome #1)**
The state exam results for this learning outcome did not meet the standard. There was only <u>one</u> question on the state certification exam for this learning outcome

U. **Implementation of Findings**
Continue the action plan for upcoming classes in 2020-21.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Basic Firefighter 2017 CIP

Date: Dec. 1, 2017_____   **Name of Administrative or Educational Support Unit:** Fire Academy _____

Contact name: Pat McAuliff _____   **Contact email:** pmcauliff@collin.edu   **Contact phone:** 972-548-6837 _____   **Office Location:** A-206 ___

Mission:

The Basic Firefighter Certificate (Fire Academy) program fulfills the college mission statement by offering students the necessary education and training to successfully pass state certification exams for Basic Firefighter and Emergency Medical Technician (EMT). These certifications are required for employment in fire departments throughout the state.

PART I: **Might not change from year to year**

A. Outcomes(s) Results expected in this department/program	B. Measure(s) The instrument or process used to measure results	C. Target(s) The level of success expected
Force entry into a structure, given personal protective equipment, tools, and an assignment, so that the tools are used as designed, the barrier is removed, and the opening is in a safe condition and ready for entry.	Texas Commission on Fire Protection state certification exam	Score 70% or better
Attack a passenger vehicle fire operating as a member of a team, given personal protective equipment, attack line, and hand tools, so that	Texas Commission on Fire Protection state certification exam	Score 70% or better

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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A. Outcomes(s) Results expected in this department/program	B. Measure(s) The instrument or process used to measure results	C. Target(s) The level of success expected
hazards are avoided, leaking flammable liquids are identified and controlled, protection from flash fires is maintained, all vehicle compartments are overhauled, and the fire is extinguished.		
Protect evidence of fire cause and origin, given a flashlight and overhaul tools, so that the evidence is noted and protected from further disturbance until investigators can arrive on the scene.	Texas Commission on Fire Protection state certification exam	Score 70% or better

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

PART II: For academic year 2014-15 (Year 2 of 5 in CIP Cycle)

From Part I

A. Outcomes(s)	D. Action Plan Years 5 & 2	E. Implement Action Plan Years 1 & 3	F. Data Results Summary Years 2 & 4	G. Findings Years 2 & 4
Results expected in this department/program	Based on analysis of previous assessment, create an action plan and include it here in the row of the outcomes(s) it addresses.	Implement the action plan and collect data	Summarize the data collected	What does data say about outcome?
Force entry into a structure, given personal protective equipment, tools, and an assignment, so that the tools are used as designed, the barrier is removed, and the opening is in a safe condition and ready for entry.	Develop and post additional review forcible entry questions on Blackboard (Canvas) course link. Include review of door, window and wall types during hands-on skills training.	Average number of questions for Forcible Entry on the state exam: 2.4 Average pass rate among students for Forcible Entry; 75.82	Knowledge: 75.82 % Performance: 100%	Knowledge: Met Performance: Met Providing access to review questions increased the pass rate from a low of 34.78%.
Attack a passenger vehicle fire operating as a member of a team, given personal protective equipment, attack line, and hand tools, so that hazards are avoided, leaking flammable liquids are identified and controlled, protection from flash fires is maintained, all vehicle compartments are overhauled, and the fire is extinguished.	Develop and post additional review vehicle fire questions on Blackboard (Canvas) course link. Include use of mobile car fire prop in "multi-tasking" live-fire training sessions.	Average number of questions for Vehicle Fire on the state exam: 1.25 Average pass rate among students for Vehicle Fires; 94.65	Knowledge: 94.65 % Performance: 100%	Knowledge: Met Performance: Met Providing access to review questions increased the pass rate from a low of 45%.
Protect evidence of fire cause and origin, given a flashlight and overhaul tools, so that the evidence is noted and protected from further disturbance until investigators can arrive on the scene.	Develop and post additional review vehicle fire questions on Blackboard (Canvas) course link.	Average number of questions for Protecting Evidence on the state exam: 3.16 Average pass rate among students for Protecting Evidence; 70.7 (yrs1-5)	Knowledge: 69.1% Performance: 100%	Knowledge: Not met Performance: Met Providing access to review questions increased the pass rate from a low of 61%.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.
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Basic Firefighter 2018-19 CIP

Continuous Improvement Plan

Outcomes might not change from year to year. For example, if you have not met previous targets, you may wish to retain the same outcomes. *If this is an academic, workforce, or continuing education program, you must have at least one student learning outcome.* **You may also add short-term administrative, technological, assessment, resource or professional development goals, as needed.**

Date: 2018-2019   **Name of Program/Unit: Fire Academy**

Contact name: Pat McAuliff   **Contact email:** Pmcauliff@collin.edu   **Contact phone:** X 6837

Table 1: CIP Outcomes, Measures & Targets Table (focus on at least one for the next two years)

A. Expected Outcome(s) Results expected in this unit (e.g. Authorization requests will be completed more quickly; Increase client satisfaction with our services)	B. Measure(s) Instrument(s)/process(es) used to measure results (e.g. survey results, exam questions, etc.)	C. Target(s) Level of success expected (e.g. 80% approval rating, 10 day faster request turn-around time, etc.)
Protect evidence of fire cause and origin, given a flashlight and overhaul tools, so that the evidence is noted and protected from further disturbance until investigators can arrive on the scene.	Texas Commission on Fire Protection	Score 70% or better
Identify precautions necessary when providing emergency medical care to victims of hazardous materials/WMD incidents.	Texas Commission on Fire Protection	Score 70% or better

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Given examples of hazardous materials/WMD and identity of each hazardous material/WMD (name, UN/NA identification number, or type of placard), identify the following response information: *Personal Protective Equipment necessary.*	Texas Commission on Fire Protection	Score 70% or better
Given scenarios involving hazardous materials/WMD incidents, the operations level responder shall collect information about the incident to identify the containers, the materials involved, the surrounding conditions, and whether hazardous materials/WMD have been released,	Texas Commission on Fire Protection	Score 70% or better

Description of Fields in the Following CIP Tables:
A. Outcome(s) - Results expected in this program (e.g. Students will learn how to compare/contrast conflict and structural functional theories; increase student retention in Nursing Program).
B. Measure(s) - Instrument(s)/process(es) used to measure results
(e.g. results of surveys, test item questions 6 & 7 from final exam, end of term retention rates, etc.)
C. Target(s) - Degree of success expected (e.g. 80% approval rating, 25 graduates per year, increase retention by 2% etc.).
D. Action Plan - Based on analysis, identify actions to be taken to accomplish outcome. What will you do?
E. Results Summary - Summarize the information and data collected in year 1.
F. Findings - Explain how the information and data has impacted the expected outcome and program success.
G. Implementation of Findings – Describe how you have used or will use your findings and analysis of the data to make improvements.
Table 2. CIP Outcomes 1 & 2 (FOCUS ON AT LEAST 1)

CC. Outcome #1 Protect evidence of fire cause and origin, given a flashlight and overhaul tools, so that the evidence is noted and protected from further disturbance until investigators can arrive on the scene.	
DD. Measure (Outcome #1) Texas Commission on Fire Protection state certification exam	**EE. Target (Outcome #1)** Score 70% or better
FF. Action Plan (Outcome #1) Develop and post additional review fire scene preservation questions on Blackboard (Canvas) course link.	
GG. Results Summary (Outcome #1) 2017-18: Class #69 – 65.91%	

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Class #70 – 75.24
Class #71 – 76.92
2018-19:
Class #72 – 64.88%
Class #73 – 85.31
Class #74 – 86.43
Overall – 75.78%

HH. Findings (Outcome #1)
The data indicates that the target of 70% or better was met.

II. Implementation of Findings
While the findings show that the minimum target was met, we will continue to include additional study questions for student in Canvas in an effort to increase the success rate for this subject area within the curriculum.

V. Outcome #2
Identify precautions necessary when providing emergency medical care to victims of hazardous materials/WMD incidents.

W. Measure (Outcome #2)	X. Target (Outcome #2)
Texas Commission on Fire Protection state certification exam	Score 70% or better

Y. Action Plan (Outcome #2)
Develop and post additional review questions in Canvas related to the identification of precautions when providing emergency medical care to victim at hazardous materials/WMD incidents.

Z. Results Summary (Outcome #2)
2018-19:
Class #72 – N/A
Class #73 – 8%
Class #74 – 33.33
Overall – 20%

AA. Findings (Outcome #2)
The data indicates that the target of 70% or better was not met.

BB. Implementation of Findings
We will use the findings to initiate the development of review questions on this topic to be posted in Canvas for student review.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

A. Outcome #3
Given examples of hazardous materials/WMD and the identity of each hazardous material/WMD (name, UN/NA identification number, or type of placard), identify the personal protective equipment necessary emergency responders.

B. Measure (Outcome #3)	C. Target (Outcome #3)
Texas Commission on Fire Protection	Score 70% or better

D. Action Plan (Outcome #3)
Develop and post additional review questions in Canvas related to the identification of personal protective equipment necessary for emergency responders.

E. Results Summary (Outcome #3)
2018-19:
Class #72 – 50%
Class #73 – 48%
Class #74 – N/A
Overall – 49%

F. Findings (Outcome #3)
The data indicates that the target of 70% or better was not met.

G. Implementation of Findings
We will use the findings to initiate the development of review questions on this topic to be posted in Canvas for student review.

A. Outcome #4
The hazardous materials responder functioning at the Operations level shall identify various tank cars by type.

B. Measure (Outcome #4)	C. Target (Outcome #4)
Texas Commission on Fire Protection	Score 70% or better

D. Action Plan (Outcome #4)
Develop and post additional review questions in Canvas related to the identification of tank cars used to carry hazardous materials.

E. Results Summary (Outcome #4)
2018-19:
Class #72 – 38.46%
Class #73 – 46.15%

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

Class #74 – N/A
Overall – 42.30%

F. Findings (Outcome #4)

The data indicates that the target of 70% or better was not met.

G. Implementation of Findings

We will use the findings to initiate the development of review questions on this topic to be posted in Canvas for student review.

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

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Basic Firefighter 2019-20 CIP

Continuous Improvement Plan

Outcomes might not change from year to year. For example, if you have not met previous targets, you may wish to retain the same outcomes. *If this is an academic, workforce, or continuing education program, you must have at least one student learning outcome.* You may also add short-term administrative, technological, assessment, resource or professional development goals, as needed.

Date: 2019-20   **Name of Program/Unit: Fire Science**

Contact name: Pat McAuliff   **Contact email:**   pmcauliff@collin.edu   **Contact phone:**   6837

Table 1: CIP Outcomes, Measures & Targets Table (focus on at least one for the next two years)

A. Expected Outcome(s) Results expected in this unit (e.g. Authorization requests will be completed more quickly; Increase client satisfaction with our services)	B. Measure(s) Instrument(s)/process(es) used to measure results (e.g. survey results, exam questions, etc.)	C. Target(s) Level of success expected (e.g. 80% approval rating, 10 day faster request turn-around time, etc.)
Protect evidence of fire cause and origin, given a flashlight and overhaul tools, so that the evidence is noted and protected from further disturbance until investigators can arrive on the scene.	Texas Commission on Fire Protection	Score 70% or better
Identify precautions necessary when providing emergency medical care to victims of hazardous materials/WMD incidents.	Texas Commission on Fire Protection	Score 70% or better
Given examples of hazardous materials/WMD and identity of each hazardous material/WMD (name, UN/NA identification number, or type of placard), identify the following response	Texas Commission on Fire Protection	Score 70% or better

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.
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Given scenarios involving hazardous materials/WMD incidents, the operations level responder shall collect information about the incident to identify the containers, the	Texas Commission on Fire Protection	Score 70% or better

Description of Fields in the Following CIP Tables:
A. Outcome(s) - Results expected in this program (e.g. Students will learn how to compare/contrast conflict and structural functional theories; increase student retention in Nursing Program).
B. Measure(s) - Instrument(s)/process(es) used to measure results
(e.g. results of surveys, test item questions 6 & 7 from final exam, end of term retention rates, etc.)
C. Target(s) - Degree of success expected (e.g. 80% approval rating, 25 graduates per year, increase retention by 2% etc.).
D. Action Plan - Based on analysis, identify actions to be taken to accomplish outcome. What will you do?
E. Results Summary - Summarize the information and data collected in year 1.
F. Findings - Explain how the information and data has impacted the expected outcome and program success.
G. Implementation of Findings – Describe how you have used or will use your findings and analysis of the data to make improvements.

Table 2. CIP Outcomes 1 & 2 (FOCUS ON AT LEAST 1)

JJ. **Outcome #1** 1. 6.3.4 Protect evidence of fire cause and origin, given a flashlight and overhaul tools, so that the evidence is noted and protected from further disturbance until investigators can arrive on the scene.	
KK. Measure (Outcome #1) Certification Exam Basic Firefighter	**LL. Target (Outcome #1)** **70% score or better in this subject area**
MM. Action Plan (Outcome #1) Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.	
NN. Results Summary (Outcome #1) 2019-20 Results Class #76 – 75% Class #77 – 78.33% Overall 76.66	
OO. Findings (Outcome #1) The state exam results for this learning outcome met the standard.	
PP. Implementation of Findings Implementation of the action plan produced the desired result.	

Primary self-study questions were adapted from Academic Program Review "Structuring the Six Self Study Questions ", Michigan State University, 2008.

CC. **Outcome #2 4.4.3(a)** Identify precautions necessary when providing emergency medical care to victims of hazardous materials/WMD incidents.	
DD. Measure (Outcome #2) Certification Exam Basic Firefighter	**EE. Target (Outcome #2)** 70% score or better in this subject area.

FF. Action Plan (Outcome #2)
Increase the number of questions on the course quizzes and final exam specific to this student learning outcome.

GG.   **Results Summary (Outcome #2)**
2019-20:   Class #75 – n/a   Class #76 – n/a   Class #77 – 40.91%   Overall: 40.91%
HH. Findings (Outcome #1)   The state exam results for this learning outcome did show improvement from the previous year, but did not meet the standard. There was only <u>one</u> question on the state certification exam for Class #76 for this learning outcome. Class #77 did not have any questions for this learning objective.
II. Implementation of Findings   Continue the action plan for upcoming classes in 2020-21.